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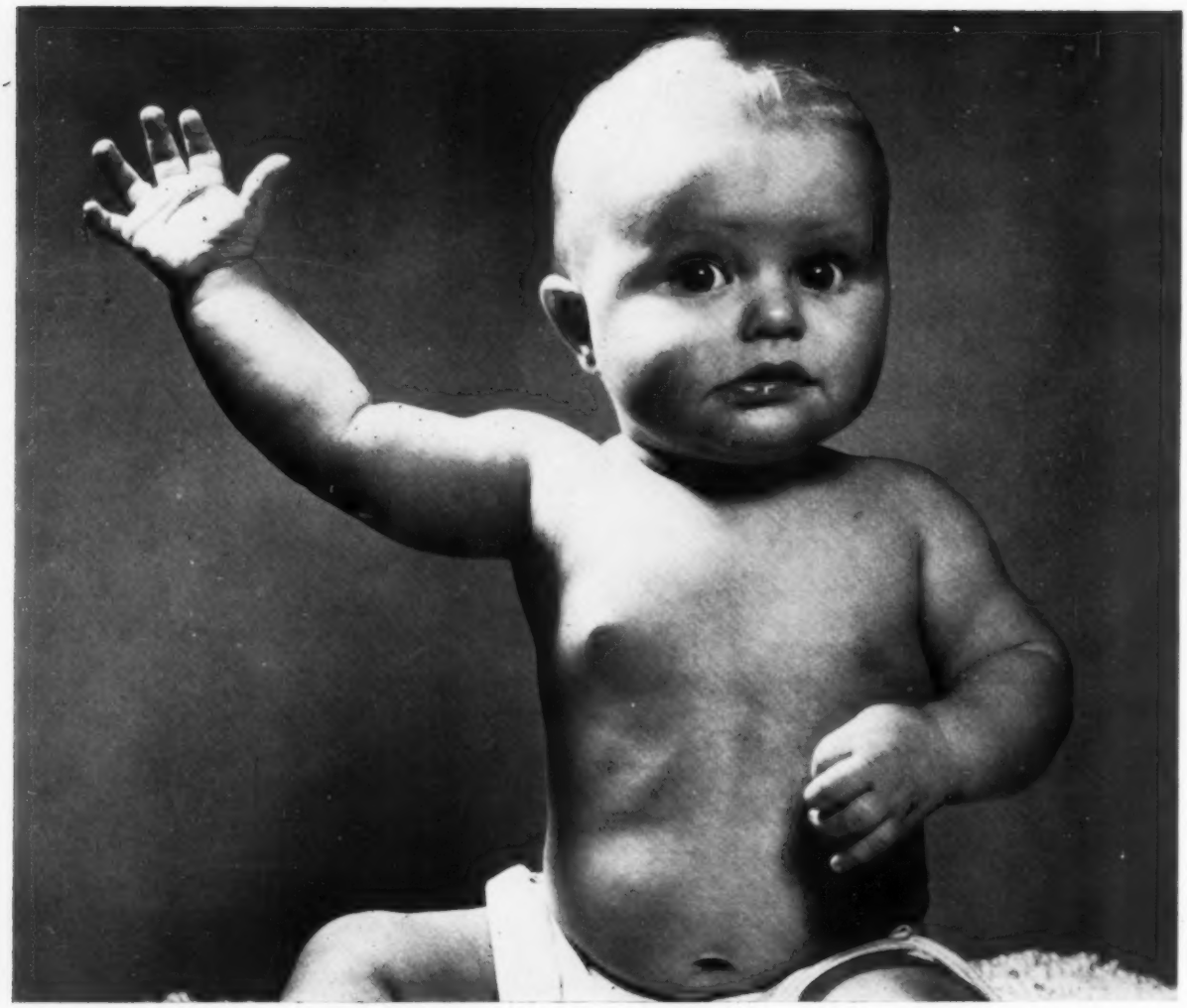

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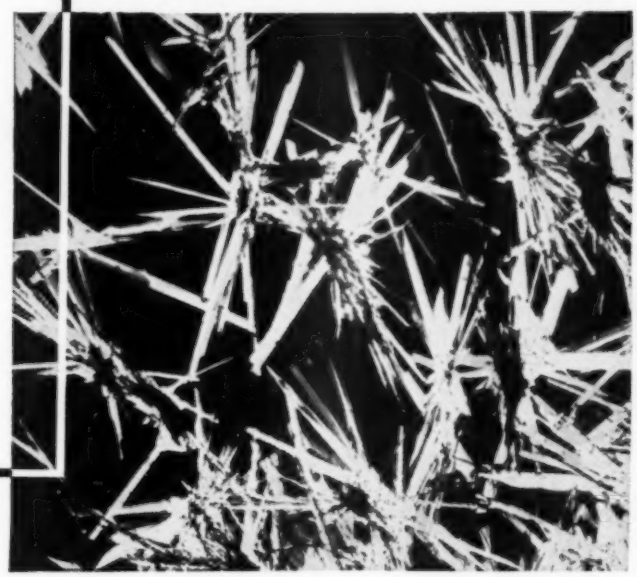

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DRUG & COSMETIC INDUSTRY

JANUARY, 1952

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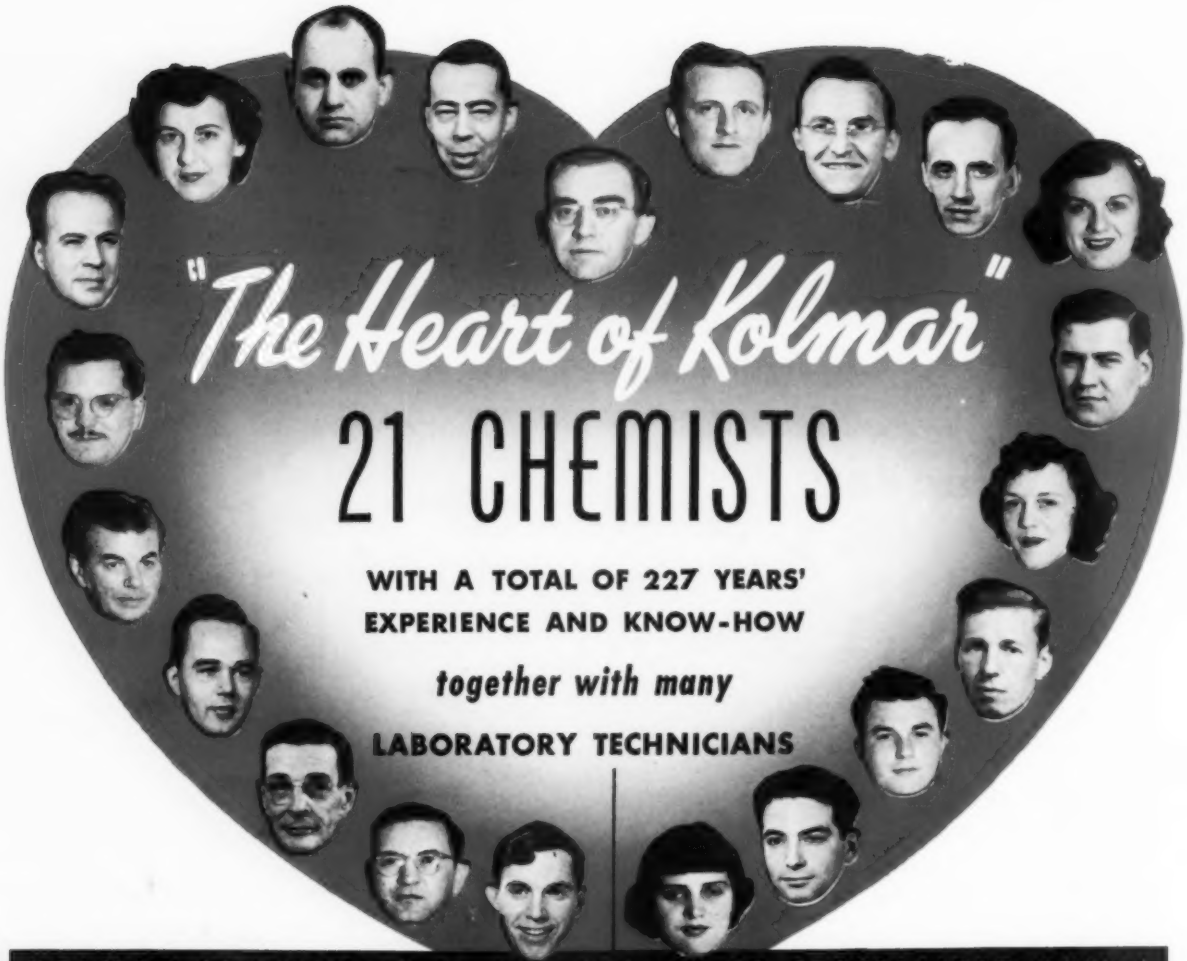

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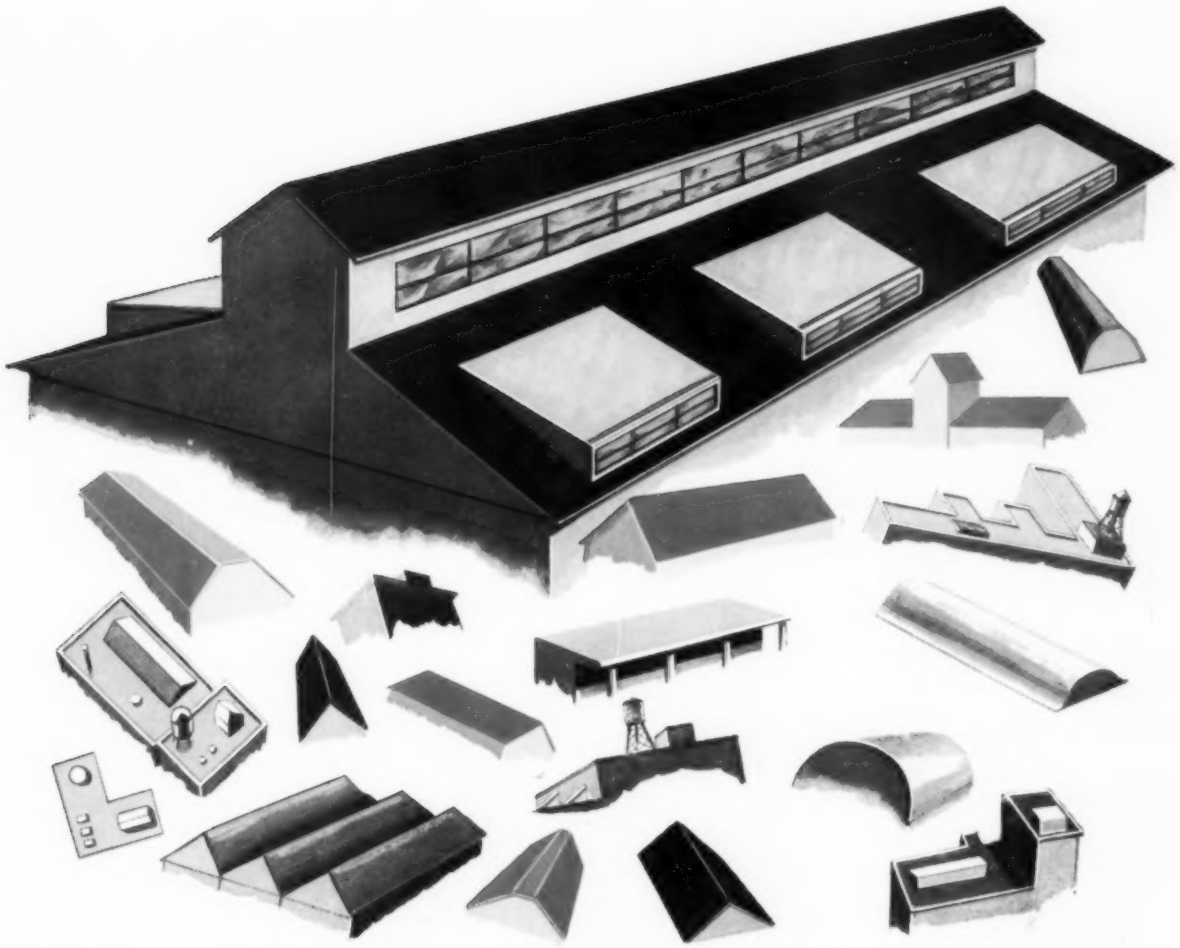

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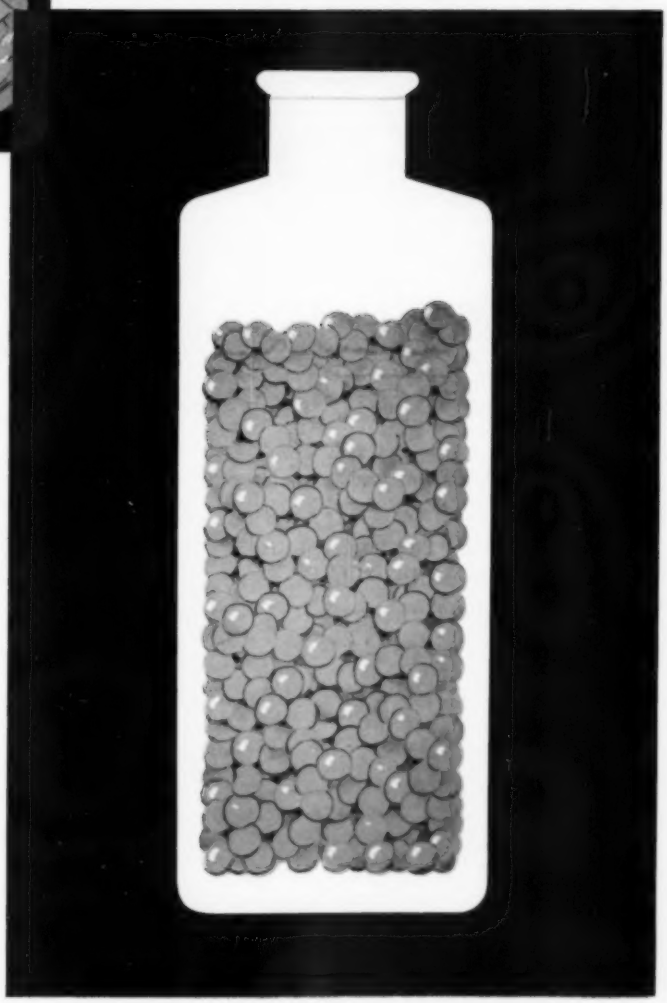

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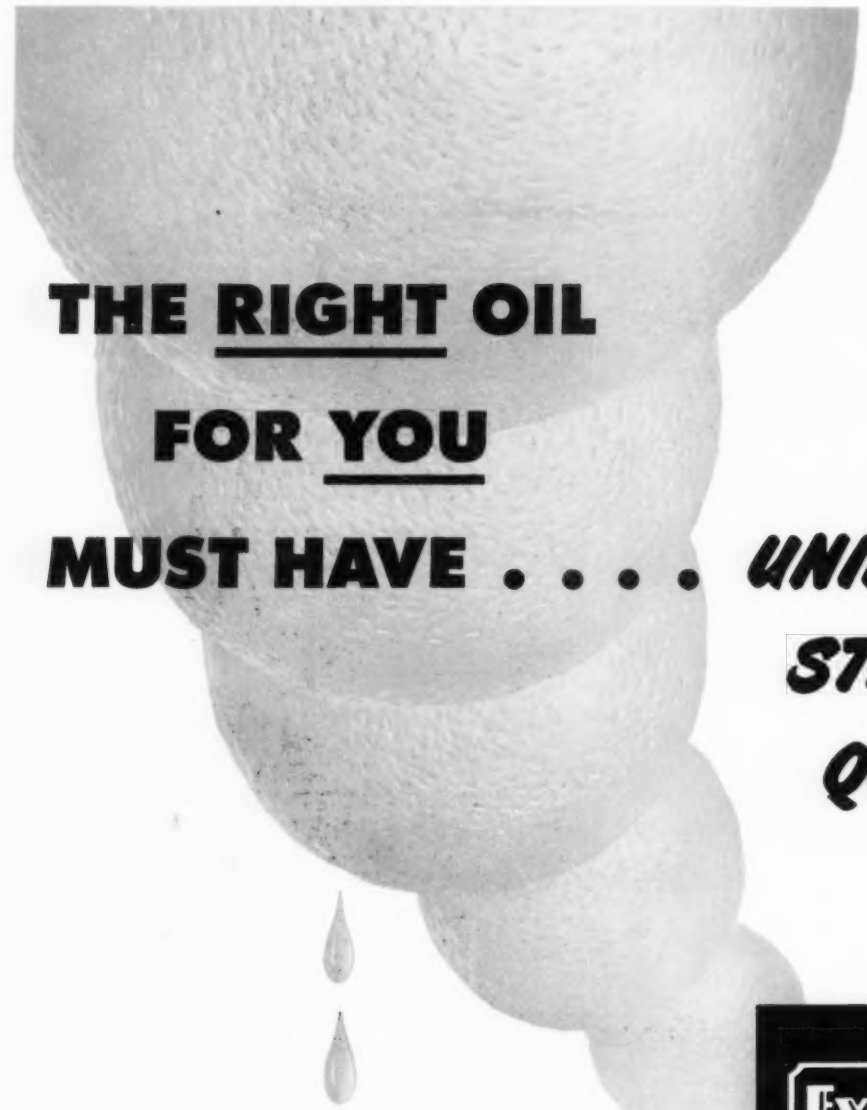

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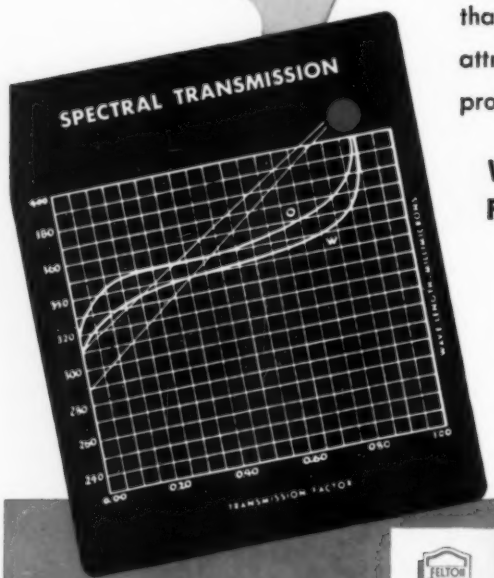

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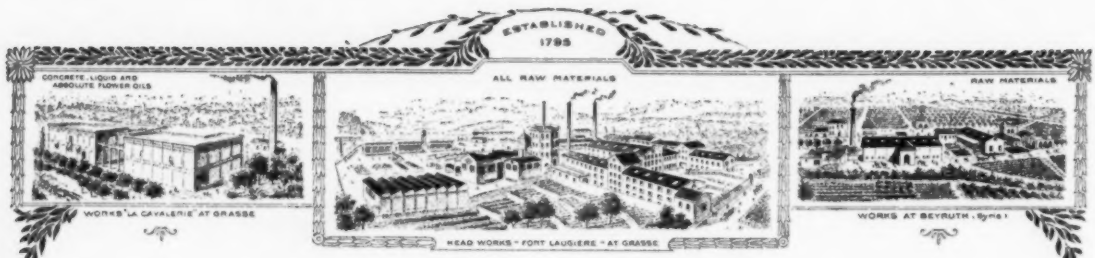

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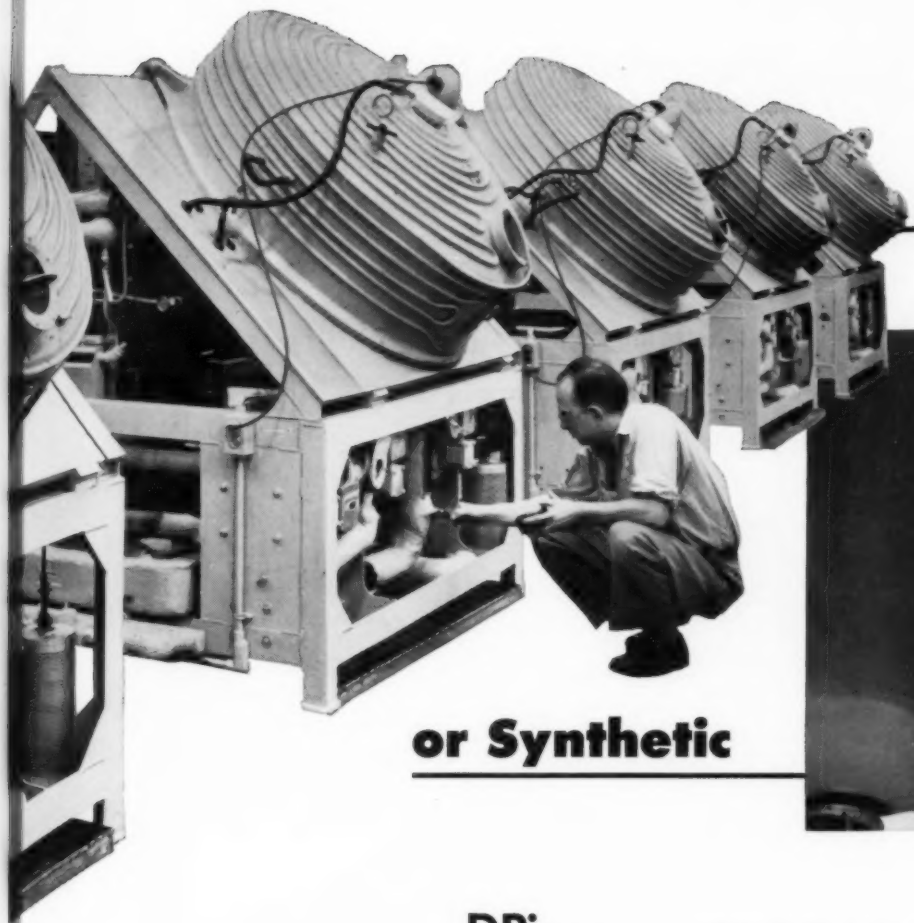

Natural

or Synthetic

DPi . . .

One Source for All Your **Vitamin A** Requirements

ONE of these men is producing vitamin A from natural oils by DPi's unique distillation and refining methods. His neighbor at DPi is watching a step in the synthesis of Myvax® Vitamin A, the first commercial synthetic vitamin A in America, available since 1948.

The point is this: whichever vitamin A you prefer, natural or synthetic, the experienced producer is DPi.

To those who wish to continue with natural vitamin A, we can supply whatever potency is required—from 50,000 to 500,000 U.S.P. XIV units per gram.

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DPi

leaders in research and production of vitamin A and vitamin E

Also . . . high vacuum equipment . . . distilled monoglycerides . . . more than 3500 Eastman Organic Chemicals for science and industry

There are many things which might be said in this space this month but nothing that we would like to say better than

Happy New Year!

May the year 1952 bring you an abundance of good health, happiness and increasing prosperity.

Synfleur Scientific Laboratories, Inc. Monticello, N.Y.

REG. U.S. PAT. OFF.

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MANAGUA • PANAMA • ASUNCION • MANILA • SAN SALVADOR • MONTEVIDEO

A STATEMENT ABOUT THE CHLOROPHYLL SITUATION IN 1952

As the principal [illegible] of Chlorophyll in the United States, we wish to report on the potential supply of Chlorophyll for 1952.

Our sur[illegible] indicate an ever-increasing demand for Chlorophyll next year as an ingredient in many types of food and pharmaceutical preparations.

We conservatively estimate that not less than $5,000,000 will be expended in consumer advertising having a Chlorophyll theme in 1952 and it is quite possible that this figure may be *doubled*.

If you expect to use Chlorophyll, or to use more Chlorophyll in 1952 than you did in 1951, we would advise you to anticipate your needs and contract for it now. While we hesitate to say there will [illegible] definite shortage of Chlorophyll in 1952, we know that users who make arrangements for next year's supplies will be in a preferred position as we will fill our contract customers' orders [illegible].

We are now ready to make contracts for future delivery on a 6 or 12 month basis for the year 1952.

CHARLES BOWMAN & CO.

220 East 42nd Street, New York 17, N. Y.

West of Denver: W. Glenn Wunderly, 170 E. California St., Pasadena 1, Calif.

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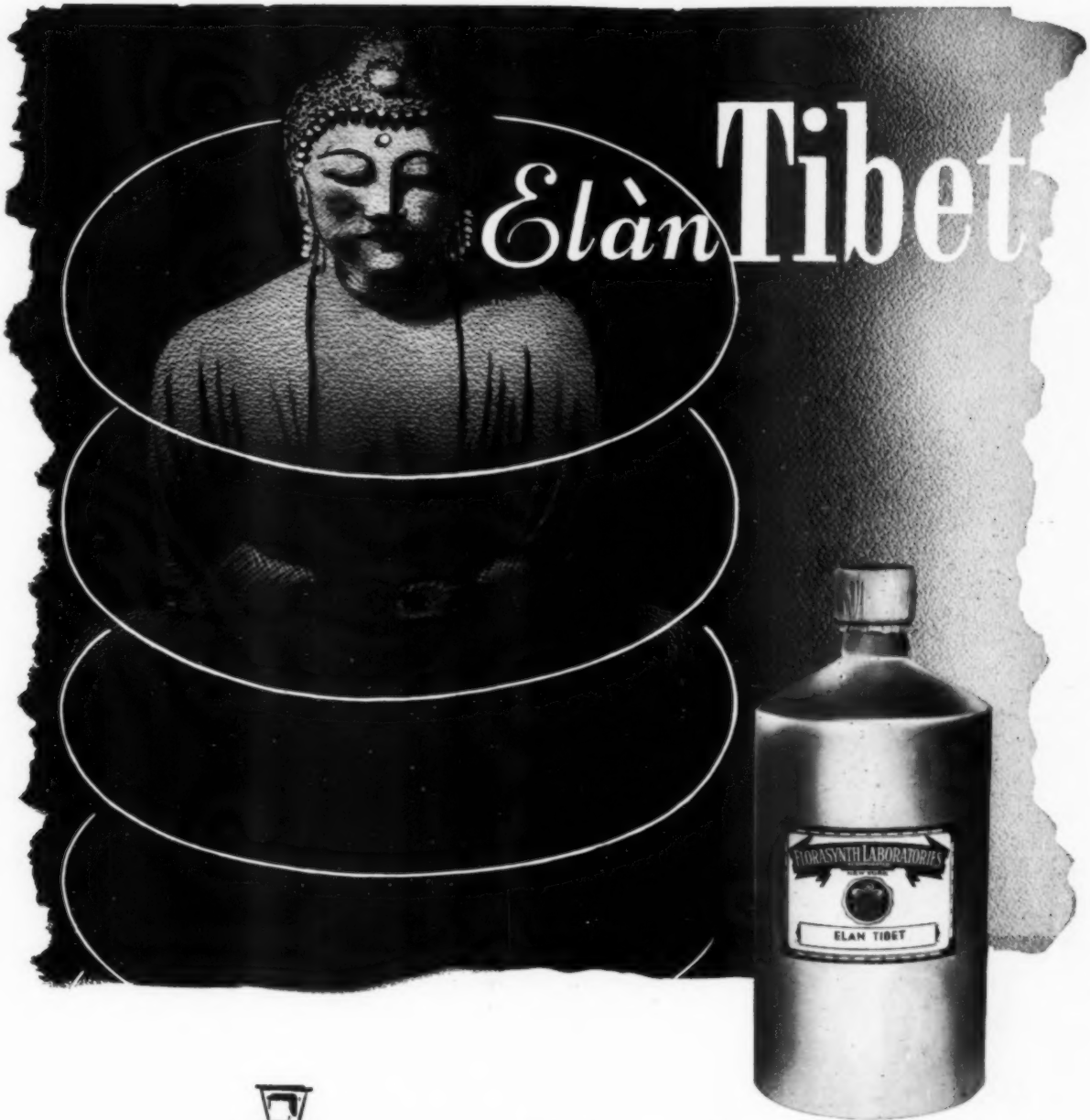

Floral creation of unusual intriguing odor...suggestive of the subtle charm and mystery of the native background with an appealing character that lends delicate bouquet to toilet waters and perfumes.

Samples upon request

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Bouquet d'Orient

In two versions:

No. 122 — for perfume, toilet water and stick cologne

No. 123 — for bath oils, powder and sachet

Samples and prices on request

Bouquet d'Orient

A Specialty of Oriental Character . . . by

AROMATIC PRODUCTS, INC.

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Hands across the border is sound policy!

It's an old Yankee expression—a time-honored American custom, this "hands across the border" with our Canadian friends. But today it's more important than ever. Canada's steady rate of industrial expansion, her great strides in scientific investigation of basic metals, her population growth may soon make Canada our major market.

For these reasons, aside from the good fellowship that exists between us, the American pharmaceutical industry is looking toward Canada and it is largely for these reasons STRONG COBB has started our new Canadian plant. STRONG COBB OF CANADA, LTD., will bring American concerns closer to their Canadian clients with the same dependable creative formulation which has made STRONG COBB the largest as well as the oldest private formula manufacturer.

And of course the service works both ways for Canadian pharmaceutical concerns can use STRONG COBB OF CANADA or STRONG COBB, U.S.A. for export to us.

Thus does international friendship and commerce between free nations help to cure the economic evils of the world.

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Beauty Fashion

Provides a straight line to the most profitable points of sale.

1 *Reaches the retailers who know how to sell perfumes and cosmetics and who do sell well over 80% of these products, except low priced, mass distributed toiletries.*

2 *These retailers are nearly all (86%) located in the 168 metropolitan markets which do 75.27% of all apparel sales and over 85% of the perfume and cosmetic sales of selected cosmetic distribution.*

3 *The key to selling in these stores is the girl behind the counter. Beauty Fashion's club subscription, editorial policy, school training program and personal contacts have, over 35 years, made these girls an intimate part of Beauty Fashion's readers.*

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Year after year, organic chemistry has been enriched by new discoveries made in the Firmenich laboratories. These discoveries, the result of imagination and original research, have become the basis of many of today's most renowned perfume creations.

BEHIND THE PRODUCT ORIGINAL RESEARCH

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BROAD RANGE OF FRAGRANCE MATERIALS...

you have an unusual variety of chemicals at your disposal. Hundreds of these materials are Givaudan-made . . . a fact that enables our perfumers to offer excellent counsel and cooperation in their use for creative purposes.

"Yours For Quality
In All Things Fragrant"

Givaudan-Delawanna, Inc.

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Branches: Philadelphia • Boston • Cincinnati • Chicago • Seattle • Los Angeles • Toronto

....*plan for an* X-RAY STOPPER

In the Mallinckrodt laboratories, skilled teams engage in continuous research to create specific new compounds—compounds to do everyday jobs *better* or to satisfy long-felt needs for the solution of *difficult* problems. An example is Urokon Sodium, which is opaque to x-rays. Injected intravenously, it is excreted by the kidneys, giving the diagnostician a clear picture of the urinary system on an x-ray film. The high opacity, low toxicity and great solubility of Urokon® Sodium were combined in one product after years of experimenting with various molecular arrangements of iodine in combination with other elements.

A deep respect for creative chemistry is shared by everyone in the Mallinckrodt organization. It is reflected in finer manufacturing processes and careful workmanship in the manufacture and development of fine chemicals not only to meet the precision standards of the medical profession but for the pharmaceutical industry as well.

MALLINCKRODT CHEMICAL WORKS • St. Louis • New York • Montreal

PHENOBARBITAL U.S.P. • BISMUTH SALTS • IODIDES • MAGNESIUM TRISILICATE U.S.P. • CALCIUM GLUCONATE U.S.P. • VITAMINS • MERCURIALS • THEOPHYLLINE U. S. P.

• MANUFACTURERS OF FINE CHEMICALS FOR THE PHARMACEUTICAL INDUSTRY • SINCE 1867 •

"The boss charges his foreign trips to Soil Sample Research."

Keeping Posted

The Next Fifty Years

POINTING out that the United States spent $800 million in 1941 on scientific research, and that in 1951 it spent $2.5 billion, Monsanto Chemical Company President Charles Allen Thomas says that "Impressive advances in science will lead to a better understanding of body chemistry." Writing on "The Next Fifty Years" in the December 1951 issue of the Monsanto Magazine—an anniversary issue celebrating 50 years of Monsanto—Mr. Thomas continues:

"Great strides will be made in the fields of biochemistry and neurophysiology. Today the scientist is gaining insight into the control of degenerative diseases which cause men to "wear out". Brilliant researches in steroid chemistry and allied fields, with their applications to body functions, will continue, resulting in healthier, longer lives.

"Hormones, those complex, powerful chemicals secreted by the endocrine glands, which so influence man's feeling of well-being, will be further synthesized and more cogently applied. The virus, and such virus-caused diseases as the common cold and infantile paralysis, will be successfully checked. Cancer will be controlled. The heart will pump longer. Neuropsychologists will learn how the mind functions during sleep and will solve the mystery of memory. All this adds up to the fact that we will have an older population, and one that is more robust with advancing years."

Cold Wave Patents Issued

AFTER more than ten years in the Patent Office, patents were issued last month to Dr. Everett G. McDonough covering materials and methods used in cold waving of hair both at home and in the beauty shop. The patents, numbers 2,577,710 and 2,577,711 were originally assigned to Sales Affiliates, Inc., and Sales Affiliates continues to hold business and management rights of the patents subject to certain rights and title held by the Procter & Gamble Company. In addition, Procter & Gamble has also secured a license under which it manufactures and sells its product "Lilt." In addition to Procter & Gamble, several other manufactuers are licensed under these patents, among them being Lever Brothers, Daggett & Ramsdell, and Lehn & Fink.

Patent number 2,577,710 covers solutions for permanent waving, especially cold waving. While covering a group of chemical compounds and solutions for such purposes, the examples specifically recommended in the patent and pointed up by the claims include compositions of the type used in the cold waving industry today, according to Sales Affiliates. The types of mercaptan solutions covered include thioglycolic acid between 1 and 10 per cent in which the pH is adjusted by ammonia to be higher than pH 7 and not higher than pH 9.5 preferably at about pH 9.2.

Patent number 2,577,711 covers more specifically one class of mercaptans which have unique qualities, that is, the non-polar compounds of the hydroxyl type. Among these is the compound glycerylmonomercaptan (thioglycerine) which is also used in the permanent wave industry.

Sales Affiliates point out that: "The remarkable nature of Dr. McDonough's scientific achievement is indicated by the fact that this patent, filed in 1941 before commercial cold waving came into its vogue, so accurately forecast what the industry would use and what has now been proved best by varied and wide spread use of hundreds of millions of cold waves on all types of hair in virtually every country of the world."

It is also pointed out that these patents have already received a favorable court decision. For when the Patent Office refused to grant claims as broad as those requested, Sales Affiliates sued the Patent Office in the U. S. District Court in Washington. After a trial lasting six days, Federal Judge F. Dickinson Letts handed down a bench decision in favor of Sales Affiliates and rendered findings which support the patent claims in every essential detail. Thus the patent already enjoys more than the usual presumption of validity because of this court decree. In addition to these U. S. Patents, Dr. McDonough had previously secured similar patents in 16 foreign countries, and had patents pending in 7 other foreign countries.

Fined for Imdrin Ad]

RHODES Pharmacal Co., distributor of Imdrin, was fined $500 in the U. S. District Court in Philadelphia, for false advertising. The court action followed the company's plea of nolo contendere to an information filed by the U. S. District Attorney. Still pending before the FTC is its own complaint charging that Imdrin is advertised falsely as a cure for arthritis, rheumatism, neuritis, and other ailments.

The advertisement which brought about the fine appeared in a March issue of Drug Topics. According

to the Government suit, it contained misleading references to a decision of the U. S. District Court, Chicago, which on February 21 had denied the Commission's application for a preliminary injunction to stop what it alleged was false advertising of the therapeutic properties of Imdrin.

In this advertisement the Rhodes company said the Court's decision had in effect: Branded untrue the FTC's assertions that Imdrin had claimed curative powers in cases of arthritis and rheumatism; refuted the charge that harm would be done the public in delaying to call a doctor because Imdrin was being used; cleared Imdrin of "false and misleading advertising;" held Imdrin is not excessively priced in comparison with aspirin; and recognized Imdrin as effective in allaying pains of arthritis and rheumatism.

This advertisement, the Government charged, was "misleading in a material respect" because the Chicago Court's decision in the injunction suit did not bear out the statements made by the Rhodes company. The Government alleged further that the advertisement was disseminated "for the purpose of inducing and was likely to induce" the purchase of Imdrin and was placed in the trade magazine by the Rhodes company "unlawfully, wilfully, knowingly, and with intent to mislead readers of said advertisement."

Drug Trade Conference

REPORTING to the National Drug Trade Conference, at its annual meeting held in New York last month, Dr. Robert P. Fischelis, secretary of the American Pharmaceutical Association, decried the attitude of the Food and Drug Administration in respect to the methods which the officials use to bring about extension of power. Instead of calling upon representatives of the affected segments of the drug industry for discussion of problems which the FDA feels requires new legislation or regulations, they air these proposals through speeches to trade associations, or they send up trial balloons by calling in a representative of a trade paper and giving him an article outlining such a proposal, or perhaps they let hints drop here and there through offhand conversations which they hope will bring about discussions which might make it appear that there is more to the subject than just FDA's own ideas.

As a pertinent instance of the affected parties being completely ignored by the FDA, Dr. Fischelis pointed out that no representatives of any of the segments of the industry had been called into consultation concerning the drafting of the regulations for enforcement of the recently enacted Durham-Humphrey Law, which law amends the Food, Drug, and Cosmetic Act with regard to Federal control of prescriptions.

James J. Hoge, counsel for the Proprietary Association, told the conference that he is feeling a "growing concern" with respect to "the ever-widening reach" of Federal legislation, not only in this industry, but generally. He said that the proposed amendment to the trade-mark bill is being carefully followed by a committee of which he is chairman. Also he spoke in favor of a Federal bill to restore the legality of Fair Trade in interstate commerce. He noted that the proposed general certification legislation was dormant at the present time, but that agitation for Federal control of barbiturates might bring about introduction of a bill on this subject.

The subject of barbiturate control at the Federal level was the subject of much discussion. It was pointed out by Dr. Robert Swain, editor of Drug Topics, that it was failure of the officials of the State of Georgia to enforce their dangerous drugs act that was responsible for the Sullivan decision which established the power of the FDA over sales at retail. He maintained that control of barbiturates could be made effective under existing laws, but pointed out that the states had to enforce their own laws to bring this about. It was pointed out that the doctors and pharmacists of the country are licensed by the states and not by the Federal Government.

Dr. Frederick J. Cullen, executive vice-president of the Proprietary Association, said that the Federal Government is "gradually, by erosion" taking away the power of the state agencies.

Robert P. Stormont, representing the Legislative Committee of the American Medical Association, stated that the A.M.A. will actively oppose any legislation designed to bring about Federal licensing of doctors and pharmacists for the handling of barbiturates. He said that it was felt that such legislation would be a forerunner of other legislation for the control of other dangerous drugs.

It was quite generally agreed by members of the Conference that a problem existed with regard to barbiturates, but it was thought that the problem did not exist as the result of control now existing over legitimate channels through which these products are distributed. It was pointed out that in Massachusetts a law was enacted to bring under control those who were in illegal possession of these products. Enforcement of this law resulted in the seizure of large stocks of these products which finding their way into illegitimate channels, and the problem was cleared up most satisfactorily.

Multi-Test Clinic Findings

THE Richmond, Va., muti-test clinic found diseases or health defects in one out of four apparently well persons and encouraged establishment of new patient-physician relationships, according to the the Health Information Foundation. One out of eight persons passing through the clinic had health defects not previously known to them and needing doctors' attention.

These and many other findings are the result of a Foundation study of the Richmond clinic which has examined some 40,000 local citizens for tuberculosis, heart defects, syphilis, hypertension, anemia, diabetes, obesity, and visual impairments. The tests were given free of charge between January 3 and July 28, 1950. They were planned by the Health Division of the Richmond Area Community Council in cooperation with the Public Health Service and the City Health Department.

Medical Care Breakdown

IN 1950, drugs accounted for 17 cents of the dollar spent for medical care in this country, compared with 23 cents in 1945, 21 cents in 1940, 21 cents for the period 1935-1939, and 19 cents in 1930, according to a report on medical care expenditures by Frank G. Dickinson of Chicago, published in the Journal of the American Medical Association.

The part of the dollar going for physicians' services stood at 28.1 cents in 1950, compared with 26.1 in 1945, 29.7 in 1940, 31.1 for 1935-1939, and 31.8 in 1930.

Dentists' services took 11.7 cents of every dollar in 1950, compared with 12.6 in 1945, 13.6 in 1940, 13 for 1935-1939, and 15.9 in 1930.

Hospitals increased their share of the dollar to 23.1 in 1950, compared with 17.9 in 1945, 17.1 in 1940, 16.9 for 1935-1939 and 13.9 in 1930.

All other medical care took 19.9 cents of every dollar for 1950, 20.7 for 1945, 18.8 for 1940, 18.3 for 1935-1939, and 18.9 for 1930.

Total medical care in 1950 is estimated at $8.5 billion, of which $2.4 billion went for physicians services, $2 billion for hospitals, $1.4 billion for drugs and sundries, $1 billion for dentists services, and $1.7 billion for all other medical care.

Compared with these expenditures in 1950 for medical care are $8.1 billion for alcoholic beverages, $11.3 billion for recreation, $4.4 billion for tobacco, $2.3 billion for personal care, and $1.5 billion for jewelry.

F.T.C. and Functional Discounts

REPORTS in business circles that the Federal Trade Commission is seeking to outlaw functional discounts granted by manufacturers has been denied by FTC Chairman James M. Mead. Said Commissioner Mead:

"I can assure you that the Commission had never issued an order in a price discrimination case under the Clayton Act, as amended by the Robinson-Patman Act, forbidding a manufacturer to grant a functional discount as such. As to the future, I can assure you that as chairman of the Commission, I have no thought of attempting any such action, and, in my judgment, the law does not permit the Commission to take such action.

"Let me make one point clear. The position of the Commission on functional discounts or on any matter is the position taken by the majority of its members. No individual is authorized to speak or purport to speak for the Commission except as such authority is conferred by a majority of that body."

Wildroot Answers F.T.C.

WILDROOT Co., in answering the FTC complaint recently brought against the company, denies that advertising and promotional allowances made to its retail drug customers are in violation of the Robinson-Patman Act. Wildroot claims that these allowances were not confined to some of its customers but were available to all on proportionately equal terms.

Wildroot declares that prior to July 1, 1950, it made available to all its retail customers payments in the amount of 5 per cent of the retail fair trade prices of their purchases of Wildroot Cream Hair Tonic and Wildroot Liquid Cream Shampoo, which sums were to be paid over to the clerks for promoting the sale of the products. However, says Wildroot, certain customers did not choose to avail themselves of all or any part of the 5 per cent and some requested less than 5 per cent as a commission for their sales clerks.

Payments were also made to some customers, the answer admits, for maintaining window and counter displays, for special promotional sales, and for cooperative advertising. But Wildroot specifically denies that these payments were not made available to all customers on proportionately equal terms. As an affirmative defense, Wildroot says that "all of its advertising and promotional allowances were made in accordance with the established custom and practice of the drug trade and were made in good faith to meet similar allowances made by competitors." Wildroot contends that none of the payments it made for advertising and promotional services and facilities provided by its customers resulted in any discrimination. As an additional defense, Wildroot said:

". . . any differentials in economic advantages existing between different classes of the drug trade reselling respondent's products to the consuming public, which may be found to exist, make only due allowance for differences in the cost of sale and delivery resulting from the different methods and quantities in which such products are purchased by such different classes of the drug trade."

Baxter Laboratories Facts

THE recent agreement drawn up between Baxter Laboratories, Inc. and Don Baxter, Inc., gives Baxter Laboratories exclusive rights to the trade-mark "Baxter" in 37 eastern states, and gives Don Baxter, Inc. the rights to this mark in eleven western states. Other trade-marks also included under this same distribution agreement include, among others, "Vacoliter," "Trinidex," "Transfuso Vac," "Plasma-Vac," and "Centri-Vac."

Don Baxter, Inc. is now owned by the American Hospital Supply Corporation, which has been the distributor of the products of Baxter Laboratories, Inc. in the 37 states in which it operates. A new agreement has been drawn up with American Hospital Supply Corporation appointing it non-exclusive distributor of the products of Baxter Laboratories, Inc. for ten years. This agreement is terminable by two years' notice on the part of either party.

Agreement has been made between the two companies regarding royalties on products and processes. By these cross licensing agreements, the licenses to Don Baxter, Inc., continue to be royalty-free, while Baxter Laboratories, Inc. agrees to pay certain royalties to Don Baxter, Inc. for a ten-year period at a rate which decreases ten percentage points a year. This and other information is given in a prospectus issued in connection with 125,000 shares of $1 par value common stock of Baxter Laboratories, Inc., priced at $17 per share.

Baxter Laboratories, Inc., manufactures solutions for parenteral feeding and equipment for blood transfusions. Aggregate net sales of solutions and blood and plasma in containers in the year 1950 and in the ten months ended October 31, 1951, amounted to $6,087,134 and $5,501,854 respectively. The company is also engaged in the manufacture of sets for collecting of blood and for administration of solutions, blood and plasma. Prior to 1945 such sets were normally of the non-expendable type, made of rubber tubing, requiring cleaning and sterilization after each use. In 1945 and 1946, Baxter Laboratories added to its line a new expendable type of set utilizing plastic materials, which was discarded after use. In the year 1950 and the ten months ending October 31, 1951, net sales of all sets, including non-expendable sets and replacements parts therefore, amounted to $3,787,421 and $3,755,682, respectively.

Sales of the company for the first ten months of 1951 totaled $9,257,536; compared with sales of $9,874,555 for the year 1950; $7,103,908 for 1949; $6,326,482 for 1948, and $3,976,317 for 1947. Net income for the first ten months of 1951 totaled $614,032; compared with earnings of $874,734 for the year 1950; $632,639 for 1949; $693,296 for 1948; and $308,218 for 1947.

Small Business Defined

TO ASSIST government agencies in their small business programs in the defense efforts, the Department of Commerce has surveyed 452 manufacturing industries in an effort to determine what constitutes small business. It ws established that the definition of small business differs with industries, and that for manufacturing as a whole, 54 per cent of the output comes from firms in the standard definition of small business, that is, having less than 500 workers. Using this survey, the Department of Commerce has issued its list entitled "Size Classification of Manufacturers" which maintains that companies in the following industries are small if they have no more employees than the numbers given: Toilet preparations and cosmetics, 250; soap and glycerin, 500; chemical products, 100; essential oils, 100; pharmaceutical preparations, 300.

Television Ad Code

THE National Association of Radio and Television Broadcasters has adopted a code known as the Television Code of the National Association of Radio and Television Broadcasters. With reference to the advertising of medicinal products the code says:

1. The advertising of medicinal products presents considerations of intimate and far-reaching importance to the consumer, and the following principles and procedures should apply in the advertising thereof.

(a) A television broadcaster should not accept advertising material which in his opinion offensively describes or dramatizes distress or morbid situations involving ailments, by spoken word, sound or visual effects.

(b) Because of the personal nature of the advertising of medical products, claims that a product will effect a cure and the indiscriminate use of such words as "safe," "without risk," "harmless," or terms of similar meaning should not be accepted in the advertising of medical products on television stations.

The code includes the following:

"Appeals to help fictitious characters in television programs by purchasing the advertiser's product or service or sending for a premium should not be permitted, and such fictitious characters should not be introduced into the advertising message for such purposes. When dramatized advertising material involves statements by doctors, dentists, nurses, or other professional people, the material should be presented by members of such profession reciting actual experience or it should be made apparent from the presentation itself that the portrayal is dramatized."

Doan Attacks Company Spending

FEDERAL taxes not only probe into the pockets of workers and corporations but "turn pockets inside out and then vacuum the linings," Leland I. Doan, president of the Dow Chemical Company, told the Providence Analysts Society last month. However, Mr. Doan attacked wasteful spending and extravagance on the part of corporations, pointing out that this decreases tax collections "eventually to the point where further tax increases are the only alternative." Mr. Doan maintained that it is "easy for corporation men to succumb to a philosophy of spending income dollars, even frivolously, rather than hand them over in taxes. Very little has been said about the suicidal effect that the practice would have on total economy."

Taxes, said Mr. Doan, must come from national production. If we who are responsible for production waste our dollars, he added, we are in a poor position to demand more judicious handling of our tax dollar by Government.

He who spends this, in the belief that he cheats Uncle Sam, thinks fallaciously, said Mr. Doan, since he really cheats his neighbor, his employees, his stockholders or some individual entity who must suffer increased taxes to preserve our freedom.

Doan's Pills Ads Cited

DOAN'S Pills have no therapeutic value in the treatment of kidney or bladder diseases, according to a Federal Trade Commission complaint charging Foster-Milburn Co. with false advertising. Street & Finney, advertising agency handling the account, is also cited as a respondent in the case because of its alleged cooperation with the client in preparation and dissemination of the advertisements.

The complaint charges that, contrary to the respondent's representations, Doan's Pills are not a cure or remedy for, nor will they have any therapeutic value in the treatment of, any disease, disorder or dysfunction of the kidneys or bladder and will not relieve or have any beneficial effect upon any symptom or condition which may arise by reason of any disease, disorder or dysfunction of such organs. The symptoms and conditions referred to are listed in the respondents' advertising, the complaint says, as backache, leg pains, rheumatic pains, headaches, dizziness, loss of pep and energy, swelling, puffiness under the eyes, and frequent or scanty passages with smarting and burning. Another representation which the complaint alleges to be false is that the pills will remove or cause the kidneys to remove poisonous waste matter and excessive acids from the blood and thereby relieve the symptoms enumerated.

Cosmetics and Science

THE extent to which science has entered the cosmetic branch of this industry within comparatively recent years is not generally appreciated by many connected with the industry. The larger manufacturers of cosmetics have, in the main, but not altogether, had scientists in on their staffs for quite some years back. However, this has been true principally of cosmetic producers whose main business has not been in this field alone; but rather it is true of manufacturers whose majority of sales have come from drugs or from some other group of products in which scientists are essential if one is to remain in business. Now the time has arrived when one after another of the cosmetic manufacturers are realizing they must have a real scientific staff if they are not to be outstripped by competition.

We remember a relatively short time ago when a cosmetic manufacturer inquired regarding the engagement of a chemist with a Ph.D degree. We asked him why he felt he needed such a man after all the years he had been in business. His answer was that his customers kept asking him questions regarding his scientific staff, and he wanted to be able to answer them in a manner which would completely satisfy them that he was tops in this branch of his company. We recall some fifteen years ago when a very large maker of creams engaged its first chemist. Now this man is no longer there, but the company has a real scientific staff headed by a man with a Ph.D. degree. We also recall a man with a Ph.D. degree leaving a drug and

chemical manufacturer for whom he was chief chemist to become associated with a cosmetic manufacturer. After several years, this man severed connections with the cosmetic manufacturer and the drug and chemical manufacturer wanted him back. He refused to go back for the reason that, in his opinion, Ph.D.'s were a dime a dozen in the drug and chemical business, while in the cosmetic business they were a rarity and, therefore, commanded much more respect, and also a much greater salary. This man went back with the drug and chemical manufacturer on a basis which permitted him to conduct a consulting business in the cosmetic field on the side. Then eventually he went back to the cosmetic business altogether.

The extent to which scientists have taken over in cosmetic manufacturing is clearly indicated by the increasing growth of the Society of Cosmetic Chemists as well as the steadily growing interest in the Scientific Section of the Toilet Goods Association. These two organizations hold meetings twice a year, and the attendance at these meetings is increasing steadily. At the last meeting of the Cosmetic Chemists held in December, 300 were present at the luncheon, and the sessions were crowded with cosmetics from cosmetic manufacturing firms located all over the country. The meeting of the Scientific Section of the Toilet Goods Association held in December was likewise crowded.

Such activity augers well for the future of cosmetic manufacture. For only through research and full appreciation of the scientific side of the business can real lasting progress be made.

On the Cosmetic Rules

WITH regard to the recently promulgated Trade Practice Rule for the Cosmetic and Toilet Preparations Industry, recently issued by the Federal Trade Commission, and becoming effective February 1, a prominent member of the industry commented: "When you have been closely associated with the development of these rules as I have for some fifteen years, you view the dissenting opinion of Commissioner Ayres as the brief for the respondent, and you view the majority opinion as the views continually expressed by the Commission."

Now 25 Oldest Drug Houses

WE HAVE become aware of the fact that the S.S.S. Company, Atlanta, Ga., makers of S.S.S. Tonic (the trade-mark S.S.S. has no particular meaning), have been in business since 1826, having sold more than 70 million bottles of this product during that time. Advertising constitutes the sales force for the product on which sales continue to show increases. Advertising expenditures for 1952 have been increased by 10 per cent, newspapers, magazines, trade papers and radio being used. The theme of the advertising is: "proved Ability of S.S.S. to build blood and to aid digestion."

The formula for the tonic came originally from the Creek Indians of Georgia, who told it to Captain N. L. Denard, of Perry, Ga. The tonic was first made on a plantation near there. Following the civil war, the formula passed to Col. Charles T. Swift, of Perry, who later moved to Atlanta.

Manufacturing and bottling is not a continuous operation. It is done three or four times a year, and the product is stored in large tanks that can accommodate a reserve supply of more than 150,000 bottles. Since the base of the product is a special kind of bush root, over 40 or 50 diggers are kept busy in Georgia and Alabama. It is estimated that about 200,000 pounds of fresh roots are consumed annually in making the tonic.

Discovery of the fact that this company dates back to 1826, causes us to add still another name to our list of Old Drug Houses which we have not published since January 1951. This list starting with Casswell-Massey Co., because they are the first, and ending arbitrarily with Eli Lilly & Co., because they were the last mentioned when the list constituted only eight as published in the Reed & Carnrick Quarterly, now stands at an even twenty-five.

Casswell-Massey Co. Ltd.	1752
Schieffelin & Company	1781
The Tilden Company	1824
S.S.S. Company	1826
The Wm. S. Merrell Company	1828
McKesson & Robbins	1833
Strong Cobb & Co.	1833
Boericke & Tafel	1835
Otis Clapp & Son	1840
Smith, Kline & French	1841
Carroll Dunham Smith Pharmacal Co.	1844
Sharp & Dohme	1845
Chicago Pharmacal Company	1855
Hance Bros. & White Co.	1855
William R. Warner & Co.	1856
E. R. Squibb & Sons	1858
Reed & Carnrick	1860
Wyeth, Inc.	1860
The Burroughs Bros. Mfg. Co.	1863
Buffington's	1865
Parke, Davis & Company	1866
Henry K. Wampole & Co.	1872
The Maltine Company	1875
The Arlington Chemical Company	1876
Eli Lilly & Company	1876

More Foreign Antibiotics

ANTIBIOTIC production in foreign countries is still being expanded with the technical help of the producers of this country. As an example, Schenley Laboratories report that arrangements have been completed for penicillin projects in Italy and Denmark, similar to those already established in France, Spain, and Western Germany, from which the company will receive royalties.

More Dental Care Available

PEOPLE in this country are receiving almost twice as much dental care and at a proportionately lower cost than they did fifteen years ago, according to the Journal of the American Dental Association, which bases its estimate on the Department of Commerce figure of a billion dollars expended for dental care in 1950, against $320 million in 1935. The increase in dental care is attributed to a growing demand for dental service and a population growth of 23 million in the past 15 years.

"The dental profession has not only been able to keep up with the growth in population, but in 15 years actually has almost doubled the amount of dental care being provided per capita," said the Journal. Even though services have increased nearly 100 per cent, Americans in 1950 spent less of their total income for dental care than they did in 1935.

Cosmetic Executives' Opinion Poll

EXECUTIVES in the cosmetic and fragrance part of the industry who determine company policy, who plan and execute sales policies and who okay advertising budgets are in surprising agreement over a number of problems which are plaguing this part of the industry.

The advertising spent by these companies for cosmetics and fragrances is not producing the amount of sales that it should produce in proportion to the money spent, in the opinion of a majority of these men.

These men believe that most cosmetics are near their market potential but that perfumes and other fragrance products have not yet approached their sales potential.

The biggest headaches of the coming year, according to these executives, will be caused by rising costs and fair trade.

These men believe that most cosmetic lines contain too many products.

They also believe that variety stores will not continue to show growing sales for higher priced cosmetics, i.e., from $.50 to $1.00, that the grocery supermarket will continue to be a growing threat to present cosmetic distribution, that the drug store has strengthened its competitive retail sales position for cosmetics and fragrances as compared to the department store and the chain store.

These conclusions are a few of the opinions of company heads and sales executives, polled by Beauty Fashion, in the executive panel which was published in the January issue of that magazine.

Here are the questions which were asked in that executive poll and the answers as given by leading policy makers of companies producing and distributing cosmetics and fragrances:

According to magazine and newspaper surveys, a very high percentage of American women use cosmetics and fragrance. Which of the following products do you think still fail to reach their market potential in the number of women using them?

Lipstick	7.5%	Nail Enamel	11.0%
Bath Preparations	50.0%	Home Hair Tints	24.5%
Home Permanents	9.0%	Solid Cologne	32.0%
Toilet Water	41.0%	Eye Make-Up	39.6%
Powder Foundation	20.0%	Cologne	37.7%
Deodorant	22.6%	Face Powder	9.0%
Perfume	69.8%	Depilatory	24.5%
Rouge	15.0%	Sachet	43.4%

The perfume and cosmetic industry is not a homogenous industry in the sense that everyone answering this panel has personal sales experience with each of the products mentioned here. At the same time, nearly all executives checked this and the following question.

The conclusion must be drawn that for most cosmetic products the industry believes that an excellent job has been done in selling cosmetics to the American public and that by and large nearly every American woman who should use a cosmetic, and who can afford even the ten or fifteen cent brand, already has these products in their possession. This is particularly true of such products as the lipstick where all but 7.5 per cent of the executives believe that practically every woman, everywhere in this country is at some time during the year using a lipstick.

We would have expected, however, a much larger divergence of opinion in the second question which involves an entirely different conception and one which we ourselves believe holds the real future for a very substantial sales increase of the products in our industry.

It might be true, as in the case of the lipstick, that it's the rare and unusual woman, perhaps in some city slum or in some isolated back-wash of a country district, who doesn't possess some kind of a lipstick. But we ourselves have always felt and we still believe it to be emphatically true that market research will some day concern itself with frequency of use and will at that time discover a considerable untapped market potential for even the lipstick and certainly to a far greater degree for many products, particularly makeup items, home permanents and deodorants.

The high percentage of opinion which concurs in believing that perfume and fragrance products have fallen short of everything else in the industry in reaching their true market potential evidently reflects an opinion that any woman who uses a cosmetic or make-up product and most certainly the lipstick, should to an equal degree enjoy the personal satisfaction of some form of fragrance. Below is the question and the answers which concerns the frequency of use:

These surveys give us very little or no information on the frequency of use. Which of the following products do you think has a much larger potential market to aim at because frequency of use is below a point we should reasonably expect?

Perfume	75.0%	Cologne & Toilet Water	54.0%
Deodorants	25.4%	Hair Tints	18.1%
Home Permanents	7.3%	After Shave Lotion	36.0%
Rouge	9.0%	Depilatories	20.0%
Eye Make-Up	33.0%	Bath Preparations	47.0%
Powder Foundation	20.0%		

It is with regard to advertising that practically every executive in this survey expressed an emphatic opinion and wrote the most voluminous comments.

It is evident that these executives, who select media, who okay copy, and who pay the advertising bill are nearly unanimous in the belief that advertising is not doing the job it should, or perhaps to express it more fairly, is not doing the job that they have hoped and would like to see it do. This opinion does not in any case reflect a belief that advertising is not an excellent sales instrument of this industry which they will continue to use. This was made amply clear in all of the comments and letters which accompanied the return of this poll. Nevertheless when asked the following question: "*Do you think cosmetic and fragance advertising is on the beam—producing the amount of sales it should produce for the money spent?*" Eighty-four per cent replied no and only 16 per cent said yes.

When asked to clarify this opinion in the following question, here is how these men divided the blame:

If not, what do you think advertising needs?

(a)	Objective reason why	4.3%
(b)	More sincerity	48.0%
(c)	More consistent theme	25.0%
(d)	Less jumping about on different products —more specialization	34.0%
(e)	More on selling products, less on promotions	58.0%
(f)	More education	10.0%

A much clearer picture of this frustration and uncertainty over cosmetic and fragrance advertising was given in the written comments to the next question, i.e., "*What is your idea for making advertising produce more sales, i.e., create a more frequent use of cosmetics and fragrances?*"

From these comments it would seem very apparent that the industry is thinking in terms of moving away from glamour, from the decorative type of advertising which offers no information and from the so-called prestige type of advertising which refrains in horror from the mere talk of anything which would suggest a commercial transaction. It is very clearly evident that the industry is beginning to think in terms of a more factual and convincing approach which will give the American woman a good reason why she should use that particular type of product and that particular brand.

It should be noticed with some attention that in the classified reasons above, the two things that fragrance and cosmetic advertising needs more than anything else, in the opinion of these men, is more sincerity and more straight selling of the product featured.

One of the fields of very keen executive interest this year has been concerned over the trends and changes in cosmetic distribution.

In the answers to the question, "*In the three main branches of cosmetic distribution, i.e., the department store, the drug store and chain store—has any one strengthened its position in the last few years?*" Only 14 per cent of these executives felt that the department store had strengthened its position in cosmetic and fragrance selling, 48 per cent believed that the chain store had been strengthened and 64 per cent believed that the drug store is now in a better position than ever before for cosmetic selling.

Since it has been an almost universal opinion in the trade that the food supermarket, particularly in the field of low-priced, mass market toiletries, where the drug store has been a primary outlet, would more seriously affect certain members among the 55,000 retail drug stores than it would the chain or the department store, this high opinion of the drug store is a surprise.

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The Barbiturate Problem

THE subject of increased control of barbiturates has been under consideration to some extent for quite some time. However, at the present time there seems to be a determined effort in many directions to press strongly for legislation by the Federal Government which will bring these drug products under much more stringent control than exists at the present time. It is said that many representatives in Congress have been receiving demands from their constituents that they do something about the problem which these constituents claim exists. Now knowing a great deal about the problem and the laws which are now on the statute books for control of these products, these Congressmen express the thought that some new legislation is necessary. This naturally stirs up Congress, and the Food and Drug Administration is called upon to either enforce the laws which exist, or if these laws are insufficient, to recommend new legislation which bring the problem under control.

For quite some time the proposal has existed that the barbiturates be placed under the control of the Bureau of Narcotics of the Treasury Department. The Bureau of Narcotics or the Treasury Department want none of this. Control of narcotics is a relatively simple problem compared with the control of barbiturates. This is for the reason that narcotics are controllable, in the main, through importation of the raw material for their manufacture. It is true that within recent years synthetic narcotics have complicated the picture somewhat, but these are made by very few companies of excellent reputation. Also these companies are anxious that control of their products be highly effective

and they cooperate in every way to bring about most effective control. Those who manufacture barbiturates are much more numerous than those who manufacture narcotics. Furthermore, the manufacture of these chemicals is quite well known and it would not be difficult for illegitimate manufacturers to enter the picture. Then there is the fact that most everyone is willing and anxious to aid in the control of narcotics, and that people who would engage in many other illegal activities, would shudder at the thought of engaging in the illegal traffic in narcotic drugs. The public is a long way from viewing traffic in barbiturates in the same light in which they view narcotics, and for this reason it is thought that if barbiturates were included with narcotics in the Bureau of Narcotics, it might tend to weaken the effectiveness of the Bureau of Narcotics in controlling the illegitimate traffic in narcotics.

The matter of additional laws for control of the barbiturate problem was recently discussed by the National Drug Trade Conference. A resolution was adopted by the Conference to the effect that it was felt that while present Federal and State laws are sufficient for control of the legitimate distribution of barbiturates, the problem of illegitimate distribution of these drugs must be immediately studied for the purpose of providing proper control methods.

That the problem is on the minds of officials of the Food and Drug Administration is clearly indicated by the fact that they recently demanded a conference with legal representatives of the American Drug Manufacturers Association. A committee of the A.D.M.A., headed by Walton Wheeler, counsel for Eli Lilly & Company, met with FDA officials December 12 to discuss the problem.

The proposal that the barbiturates be brought under the Bureau of Narcotics would necessitate the Federal licensing of doctors and pharmacists in order that they might prescribe and dispense these drugs. Such licensing will be actively opposed by the American Medical Association, according to Robert P. Stormont of the A. M. A. Legislative Committee. He stated to the National Drug Trade Conference that the A. M. A. sees in such action a step which would lead in time to the licensing of physicians and pharmacists at Federal level for the prescribing and dispensing of one dangerous drug after another.

But while the A. M. A. might oppoose some particular form of control of illegitimate distribution of barbiturates, the extent of the problem is being very forcefully called to the attention of the public by many doctors and public health officials. On Sunday, December 16, last, there appeared on the first page of the New York Times a story by Charles Grutzner entitled "Grave Peril Seen in Sleeping Pills." The article, which quoted New York City Health Commissioner John F. Mahoney, Dr. Herbert Weider and Dr. James M. Toolan, senior psychiatrists at Bellevue Hospital, Dr. Victor H. Vogel, medical officer in charge of the Federal Narcotics Hospital at Lexington, Ky., and Dr. Jerome Trichter, Assistant Commissioner of Health of New York City.

Dr. Weider is quoted as saying that "addiction to sleeping pills is far more dangerous to the patient and to society than is heroin addiction. During the period of barbiturate intoxication the user may be far more aggressive, acting out angers and sex behavior, than a heroin addict.

Dr. Vogel is said to have expressed similar views, adding:

"Sleeping pill addiction is becoming a more serious problem than morphine and heroin addiction, for two reasons: First, because sleeping pills are so dangerous, and second, because in so many places it's quite simple to buy them. Also withdrawal illness after the long use of large amounts of a barbiturate is more severe than from an opiate drug." In comparing barbiturate and opiate addiction, Dr. Vogel said that in the case of barbiturates there was a greater margin of safety between the therapeutic and the addicting dose, while small therapeutic doses of opiates taken regularly for several weeks would cause physical dependence. He pointed out that the small doses of one or two sleeping pills prescribed therapeutically for an indefinite period would not result in physical dependence and withdrawal illness. Addiction to barbiturate is caused by persons taking them for intoxicating effects in amounts larger than prescribed for therapeutic use. In such cases, he said, physical dependence and withdrawal illness is found.

Narcotic addicts, according to this article, who use sleeping pills as boosters with morphine, cocaine or heroin, call them "goof bals." Dr. Trichter estimates that ninety per cent of narcotic addicts make supplementary use of sleeping pills from time to time. Many carry a bottle of the pills for use as a tide-over if they should find themselves cut off from their regular supply of narcotics. Others regularly use the pills, which cost about a dollar a dozen, to stretch out the intervals between shots of narcotics, which cost a dollar or more a capsule.

"Contrary to the belief among most non-users, that sleeping pills cause immediate drowsiness, they often stimulate the user to acts he would not otherwise dare to perform. The very quality that makes physicians

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Federal Fair Trade Bills

WIDE WORLD PHOTO

TWO different efforts are being made to amend Federal law so that Fair Trade will be restored to the state of effectiveness which existed prior to the Schwegmann decision which declared Fair Trade inoperative against non-signers in interstate commerce. Two different groups, both organized years ago to strengthen and maintain Fair Trade, are sponsoring different bills to accomplish the purpose.

One such group is the Bureau of Education on Fair Trade. This group is sponsoring the Maguire bill, designated as H. R. 5767. This bill would amend the Federal Trade Commission Act, rather than the Miller-Tydings Act, upon which the Schwegmann decision was based.

The Bureau of Education on Fair Trade was created and is largely supported by members of this industry. For this reason the Maguire Bill is the piece of legislation which is likely to receive the greater support from this industry. Dr. John Dargavel, executive secretary of the National Association of Retail Druggists, is chairman of the Bureau of Education on Fair Trade, and therefore, this organization, as well as other organizations in the drug field, are strongly behind the Maguire measure. George H. Frates, Washington representative of the N.A.R.D., reported to the recent meeting of the National Drug Trade Conference on the subject of Fair Trade and called upon the delegates to the Conference to line up their respective associations behind the Maguire bill. The Conference, which only accepts resolutions which are adopted unanimously, approved a resolution endorsing and asking support for the Maguire bill.

Dr. Dargavel recently stated that support for this measure will come from almost 2,000,000 retailers, as well as from thousands of wholesalers and manufacturers. It will come almost unanimously from such fields as drugs and cosmetics, books, jewelry, automotive accessories, packaged foods, electrical appliances, sporting goods, hardware, office equipment, cameras and photographic supplies, together with tobacco and alcoholic beverages." He said further that the proposed legislation would "restore the voluntary laws, now on the statute books of 45 states, to the effective legal status they had prior to the United States Supreme Court's decision by validating the operation of the 'non-signer' clause in Fair Trade laws with respect to interstate commerce."

The other group which is sponsoring a different bill

is the American Fair Trade Council, whose president is John W. Anderson, of Gary, Indiana. This bill, which has been referred to very often as the "22 lawyers draft," would amend the Sherman Act, rather than the Federal Trade Commission Act, which is the aim of the Maguire bill. With respect to this bill, Mr. Anderson says:

"It is the decision of this Council, concurred in by a preponderance of recognized legal authorities in the field of Fair Trade, that the approach to effective restoration of Fair Trade should be through an amendment to the Sherman Act. It is likewise agreed that such a bill should be presented in a straightforward manner with no attempt to influence the assignment of the bill, once introduced, to any committee other than the House and Senate Judiciary Committees, both of which initially reported the Miller-Tydings bill. Those two committees are regarded as the logical committees for consideration of any new bill to amend the Sherman Act to achieve the purpose of the Miller-Tydings Act, and each of the two committees is regarded by this Council as a competent and impartial tribunal to conduct such hearings as it may regard appropriate in the matter."

In speaking on Fair Trade legislation at the recent meeting of the National Drug Trade Conference, James F. Hoge, counsel for the Proprietary Association, said that the AFTC Draft, or 22 lawyers draft, is in reality a Federal Fair Trade bill, in that it includes a provision that the price for any commodity must be uniform throughout the country before sale below Fair Trade minimum prices in the states having Fair Trade Acts is illegal against non-signors. He expressed doubt as to whether this type of bill could be enacted, depending of course upon the assumption that any sort of Federal bill to restore Fair Trade could, in fact, be enacted at the present time.

Evidently the American Fair Trade Council is determined to make a frontal attack in the belief that Fair Trade legislation at the Federal level can be obtained. The Bureau of Education on Fair Trade, on the other hand, appears willing to use any method available to win support to a measure that will accomplish the desired end. Whether any bill will be enacted is open to serious question, but there will be no lack of effort on the part of those interested in Fair Trade.

The text of the Maguire bill (H. R. 5767) reads as follows:

"To amend the Federal Trade Commission Act with respect to certain contracts and agreements which establish minimum resale prices and which are extended by State law to non-signers.

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that it is the purpose of this Act to protect the right of states, under the United States Constitution, to regulate its internal affairs and more particularly to enact statutes and laws, and to adopt policies which authorize contracts and agreements prescribing minimum prices for the resale of commodities and to extend the minimum prices prescribed by such contacts and agreements to persons within the State even though such persons are not parties thereto. It is the further purpose of this Act to make certain of such statutes, laws, and public policies applicable to commodities shipped in interstate or foreign commerce.

"Sec. 2. Section 5 (a) of the Federal Trade Commission Act, as amended, is hereby amended by inserting after the first sentence thereof, the following new matter: 'Nothing herein contained shall render unfair or unlawful contracts or agreements prescribing minimum prices for the resale of a commodity which bears, or the label or container of which bears, the trade-mark, brand, or name of the producer or distributor of such commodity and which is in free and open competition with commodities of the same general class produced or distributed by others, when contracts or agreements of that description are lawful as applied to intrastate transaction, under any statute, law, or public policy now or hereafter in effect in any State, Territory, or the District of Columbia in which such resale is to be made, or to which the commodity is to be transported for such resale, or render unfair or unlawful the enforcement of any right of action created by any statute, law or public policy now or hereafter in effect in any State, Territory or the District of Columbia, which declares that wilfully and knowingly advertising, offering for sale, or selling any commodity at less than the price stipulated in such contracts or agreements, whether the person so advertising, offering for sale, or selling is or is not a party to such contract or agreement, is unfair competition and is actionable at the suit of any person damaged thereby; and the making of such contracts or agreements, or such enforcement thereof against a contracting or noncontracing person, shall not be illegal under section 1 of the Act entitled "an Act to protect trade and commerce against unlawful restraints and monopolies," approved July 2, 1890, as amended; Nor shall the making of such contracts or agreements, or the enforcement thereof against a contracting or non-contracting person constitute a burden, restraint, or interference with interstate commerce. The preceding sentence shall not make lawful any contract or agreement, providing for the establishment or maintenance of minimum resale prices on any commodity herein involved, between manufacturers, or between producers, or between wholesalers, or between brokers, or between factors, or between retailers, or between persons, firms, or corporations in competition with each other. Every person who shall make any contract or agreement hereby declared to be unfair or unlawful shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding $5,000, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.' "

The AFTC Draft, or 22 lawyers draft, reads as follows:

"A Bill to amend the Act entitled 'An Act to protect

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Pharmacy Today

*by Hugo H. Schaefer**

FIFTY years ago my father bemoaned the fact that most pharmacists were no longer making their own pills, plasters, tinctures and fluid extracts. Today we realize that it would be a practical impossibility to provide space, time and manpower for such outmoded activities. The underlying reasons for these trends go, however, beyond mere economic questions. Only large scale manufacturing procedures with elaborate scientific equipment and personnel can provide the necessary production refinements and controls which are more essential today than before because of the very nature of our modern medicaments. Consider, for instance, our vast production and use of the antibiotics. These drugs and their dosage forms must be prepared under most painstaking conditions to insure full potency, purity, sterility and keeping qualities, and, in fact, samples from every lot must be submitted to the Food and Drug Administration for their examination before being released for distribution. Each step in the production of these so-called "wonder drugs" must be rigidly controlled and a patient's life often depends upon their effectiveness. The pharmacist should realize that these products must come to him and be dispensed in finished form and that this in no manner lowers his professional dignity. He must know all about the nature, action and uses of the antibiotics and this requires a vastly increased background of scientific and professional knowledge.

The necessity for accepting finished prescription products from the manufacturer is, of course, not confined merely to the field of antibiotics. A similar

*Reponse to presentation of the 1951 Remington Medal, Dec. 11, 1951

need for exacting production and control procedures exists in the vitamin field because of the very nature of the medication involved. In mixed vitamin therapy for instance, some ingredients are used in only microgram quantities. Chemical incompatibilities often require that some of the ingredients be placed in the tablet coating or in an interior pellet. Without such precautions rapid deterioration would result. Such products can only be properly produced in large laboratories.

Many other illustrations could be given. The production of most dosage forms of hormones, glandular products and injectable substances must of necessity be left to the manufacturer. They require extensive research, elaborate equipment and continuous chemical and biological controls to safeguard the effectiveness of the finished product.

The fact that the pharmacist no longer compounds as many prescriptions as he did in former years is not a cause for his losing faith in his profession. He is dispensing more potent, more effective, more useful preparations today than ever before. He is not a mere purveyor of package goods, but rather a person with an extensive knowledge of the nature of his prescription products, one who can discuss them intelligently with the physician and who has a thorough understanding of their action and uses. Thus his education and training must cover a vast scope of newer medicaments undreamed of in past years and he must remain constantly alert to the many new and important medicinal agents which are being developed at an ever increasing rate. He compounds fewer mixtures in his prescription department, but this merely means a reduction in the time devoted by him to purely manipulative activities and the fact remains that he is filling more prescriptions than ever before and is dealing with preparations which require a far greater professional knowledge and are incomparably more effective and potent than those of earlier days.

The present much discussed question of restricting many drugs to prescription use is an indirect tribute on the part of the law makers of this country and of its enforcement agencies to the importance of pharmacy in the health professions. In all recent legislative proposals and enactments the pharmacist has received increased recognition by being consistently designated as the only person who can be safely entrusted with such duties and responsibilities. Years ago there was no need for such added restrictions since the drugs generally used were relatively harmless and correspondingly ineffective. Greater responsibilities have been placed upon pharmacy by a changing medical world and this should create faith in our profession and do away with our fears for the future.

This change in general prescription practice from mixtures which must be compounded by the pharmacist to manufactured preparations has, however, created one situation which I deplore. I have in mind the apparent needless duplication of identical or closely similar mixtures marketed by different manufacturers under different trade names. That this is not exactly a new development can be gathered from the Presidential Address of Joseph Price Remington delivered at the 41st meeting of the American Pharmaceutical Association in Chicago on August 14, 1893. President Remington had been discussing the rise of synthetic organic medicinals in the materia medica of his day. He then spoke as follows:

"The effect upon pharmacy and medicine of this extraordinary activity in the synthetical departments of chemical science has been profound; new chemical compounds and new classes of compounds have been flooding commerce like a deluge, the more valuable ones being protected by letters patent or by copyright names; competition among the large manufacturers is extremely fierce, and the result to the average pharmacist has been to produce confusion, uncertainty, and annoyance; the representatives of one manufacturer no sooner visit him and the neighboring physicians, before a competitor follows on his heels with another remedy, claiming even greater advantages and which does not possess the disadvantages of the one that has already been added to the stock."

While pharmacists of the present day may willingly accept the premise that many of our newer medicaments can be made best in large laboratories under careful control precedures, yet, they strongly resent the fact that to a great extent these items are merely duplications of products made by other producers. Many such products vary in name only and not in composition or formula, and add nothing to our materia medica or to improved medication.

Considering the fact that a large percentage of prescriptions today call for single drug remedies and that the basic ingredient of these single drug remedies emanates, as a rule, from a limited manufacturing source, there should be some method of avoiding the economic waste and confusion resulting from the urge to supply whatever may be new in a form which indicates proprietorship. Proprietary rights are granted for a limited period under our patent laws for new and useful discoveries. But when the discovery is marketed by somebody other than the discoverer and the alleged proprietary right results only from adding a flavor or devising a clever dosage form and coining a name, we witness a type of competition which fails to recognize the elements of fairness and the principles of medical and pharmaceutical ethics.

I realize that all of the violations of good ethics and commercial fair dealing are not on one side. There is the reprehensible practice of some retail dispensers of drugs to substitute unbranded replacements for branded products without consideration for the legal rights of those who own patents or trade-marks. Merely to mention these practices is to call attention to the fact that we have some unwholesome situations growing out of the commerce in drugs rather than the desire to render a high quality of professional service.

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PHOTO COURTESY HELENA RUBINSTEIN

Depilatories

by Harry Hilfer

DEPILATING agents have always had a ready market and from all indications will continue to have one. The methods used for depilation may be described as mechanical, and chemical for both types enjoy fair sales.

Under the mechanical may be listed the common safety razor and preparations used to make the shaving of the hair from the limbs easier. The best example in this category is the common shaving cream. This method of depilation has its drawbacks, however, since

the time consumed in shaving large areas such as the limbs causes a great deal of objection as does the woman's inexperience with a razor. Since this operation is at best only a bi-weekly one most women remain inexperienced. Therefore, it seemed that preparations more convenient to use would be preferable. The next step in the evolution of these preparations was the introduction of the depilating waxes. These are variously described in the patent literature as essentially wax and rosin mixtures—having a melting point somewhat higher than body temperature, which are applied in the molten state and then allowed to solidify over the surface being treated so that the hair may be enmeshed in the solidifying wax.

Such a procedure is designed to remove the hair from the skin by pulling the hair from it due to the solidifying process and then pulling the wax film from the skin. Its drawbacks lay in the pain it caused to inexperienced users and therefore did not completely fill the need for an easy convenient method of depilation.

Work on chemical depilatories had been going on for a good many years, and all of them are based on reducing agencies capable of reducing the cystine sulfur to sulfur linkage to cysteine. In addition a strongly alkaline medium is also necessary to facilitate the swelling process by reaction with the sulfhydryl groups formed—a seemingly necessary precursor to complete depilation. Indeed most of the depilatories of this type had a pH of 10 or better. The logical reducing agency to be used seemed to be the sulfides, strontium and calcium salts enjoying the greatest popularity. The most popular form was a powder, since in this state no hydrolysis and subsequent loss of hydrogen sulfide took place. The powder was mixed with water in a proportion designed to yield a smooth paste and to be easily applied to the limbs. Other agencies particularly gums and silicates such as bentonite were also added to the effective powder so that drying time and application attributes could be controlled. The sulfide was also mixed with other inert powders as a means of more equally incorporating the powder in water.

The sulfide preparations had one great fault in common—the odor of hydrogen sulfide which accompanied their use. In addition, their tendency towards hydrolysis in an aqueous medium made it difficult to incorporate into a conventional cream which could be used directly from the container instead of forcing the woman to process the powder provided into a usable ointment form. Of greater significance, but about which there were no undue complaints, was the toxicity of hydrogen sulfide itself. Actually the amount applied was so small in sulfide concentrations that the danger of a toxic reaction due to sulfide entering the body via an abrasion or scratch was minimized, but it seemed wise to convert the formulations to a non-toxic agency.

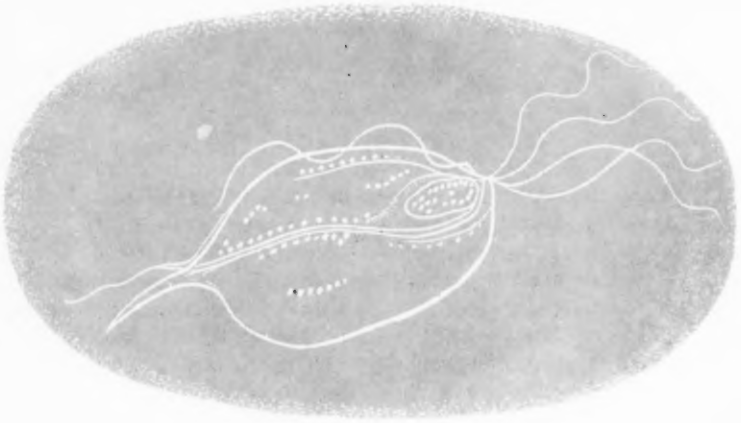
The newest development which arose as a result of the objections already stated was the use of thioglycollates. It should also be stated that other reducing agencies were tried, principally the sulfides and the stannites, but these suffered because of their inherent instability. The thioglycollates, however, are quite stable if no metallic contaminants such as iron and copper are present. Iron in addition forms a colored compound with thioglycollic acid—purplish in color—which would not enhance the appearance of the preparation. The thioglycollic acid is generally used in conjunction with a substance which will maintain an alkaline pH but one that is itself not too soluble in water. In this way the pH could be controlled without having the preparation contain too large a quantity of alkali in solution which would cause undue irritation. Calcium hydroxide is the most commonly used agency for this reason. In addition, though there is an odor emanated with its use, it is neither as strong or as offensive as is the sulfide odor. Proper latitude is also permitted in formulation because of the greater stability of the thioglycollate.

In the formulation of a depilatory cream any emulsifying agencies must be capable of withstanding a high pH and the choice of proper agencies becomes somewhat limited. Esters such as the monoglycerides cannot be safely used and the formulator becomes dependent on substances such as cetyl, stearyl, and lauryl alcohol. Non ionic emulsifiers such as the polyethoxy ethers of alcohols and the polyethoxy alkyl aryl derivatives may also be used. In addition certain of the anionic emulsifiers are usable if they do not hydrolyze in excess alkali and if they are not precipitated by the calcium ion. The presence of the calcium ion therefore precludes the use of a soap as an emulsifier.

Since calcium at the pH used in this system can easily be precipitated by carbon dioxide, in practice a small amount of calcium oxide is used as a bank to replace any of the calcium ion precipitated. In addition calcium carbonate is used as a filler though this is not necessary.

Preparations in which thioglycollates are used as cosmetic depilatories are subject to patents issued for such usage. Interested manufacturers should therefore check the patent literature thoroughly. The patent uses as an example thioglycollic acid in about a 4 per cent concentration. Actually lower concentrations may be used if the pH is sufficiently high.

A discussion of depilatories must of necessity devote itself to a long discussion of thioglycollic acid since this material is the most stable and most convenient for general uses. A further advantage it possesses is its relative freedom from toxicity. However, the fact that there is now available a good substance for incorporation into depilatories does not necessarily mean that other agencies will not do as good or better a job. A number of mercapto alcohols are available for evaluation and there are many more theoretically possibl . These, however, may come under the claims and stipulations of existing patents, but this need not deter those so inclined from searching for a better material.



Vaginal Douches

ILLUSTRATIONS ON THIS PAGE COURTESY OF G. D. SEARLE & CO.

by Milton A. Lesser

VAGINAL douche preparations are important members of the group of items referred to as feminine hygiene products. Aside from the contribution of cleansing douches to the personal hygiene of fastidious women, some of these preparations are valuable adjuncts to the treatment of vaginitis and related conditions.

According to the historians, douches have been used for many centuries and in all parts of the world. Reference to vaginal bathing is made in the earliest writings. It is said[1] that the Egyptian papyri, the Hebrew Bible and the Greek and Roman works have reference to vaginal irrigation. For example, Hippocrates mentioned that vaginal irrigations were used extensively in his time for treating vaginal and uterine diseases. Although the word douche has been used in connection with other procedures, as generally employed nowadays by both physicians and the public, the term nearly always refers to a spray directed into the vagina either for the purpose of cleansing or for therapeutic reasons.[2]

Modern times have seen a disappearance of much of the hush-hush that formerly surrounded douching. With the removal of these taboos has come a re-evaluation of the douche as an aid to cleanliness and as an adjunct to therapy. There is considerable favorable opinion on the value of douches for the treatment of unpleasant secretions. Greenhill,[3] for example, says that such solutions are of "definite help" for women who have abnormal vaginal discharges due to vaginitis or cevicitis. Under such circumstances, vaginal douches provide a mechanical means of removing the discharge and also of reducing the odor associated with it.[4]

However, as noted in a recent comment[5] on the use of cleansing preparations, there seems to be no unity of opinion among either physicians or women concerning the value of vaginal douches. At one extreme are women who take a douche every day except during menstruation in the belief that it is a cleansing process

equivalent to brushing the teeth. At the other extreme are women who never take a douche, not even after sexual intercourse. In between are women who take a douche after coitus, after menstruation, and on special occasions. In general, the consensus among specialists is that women who have normal qualitative and quantitative secretion should not take douches except after intercourse or following menstruation and at this time only to accomplish mechanical cleansing of the vagina.

Changing views concerning the need for cleansing douches may be attributed to a number of factors. Dodge[6] points out that years ago, in Europe, it was felt that douching was an essential part of feminine hygiene to prevent disagreeable odors. Bathtubs were few and showers were unknown. In these modern days, however, with plenty of soap and modern plumbing, this part of feminine hygiene is not essential.

Increasing knowledge of the physiology of the vagina also plays an important part in the formation of modern views. Thus, the normal vagina is characterized by the presence of the Doderlein bacillus, a nonpathogenic organism that is classified as a member of the lactobacilli. Unlike most bacteria, the Doderlein bacillus thrives under the acid conditions of the healthy vagina; the pH of normal vagina being between 4 and 5.[7]

Ever since the discovery that a normal degree of acidity serves as a protective mechanism against the growth of various pathogenic organisms in the genital tract, the pH of the vagina has become an important consideration to the gynecologist. Many observers have pointed out that there is a distinct correlation between the degree of vaginal acidity and the type of vaginal flora. Thus, in an infected vaginal tract, the pH approaches neutrality or alkalinity. As noted by Rakoff, Feo and Goldstein[8] in their report on the biological characteristics of the normal vagina, the high degree of acidity in the healthy track inhibits the growth of certain staphylococci, streptococci, diphtheroids and coliform organisms which are present in the normal vagina. Their presence becomes significant and their numbers increase as soon as the normal protective mechanism is interfered with by either physiologic or external factors.

In considering such data, Smith[9] came to the conclusion that cleansing douches are probably not advisable for healthy women because they may interfere with the normal germicidal action of the acid vaginal secretion. In his opinion, this secretion, and the bacteria normally present maintain adequate cleanliness in the vagina. Referring to infectious conditions in the vaginal tract, he pointed out that deeply located infections cannot be reached by chemical agents in douches. Dodge[6] advises that patients should not take a douche before an examination because this will remove the discharge that must be studied by the physician as an aid in diagnosing the condition. She also notes that douches should be eliminated during the last six weeks of pregnancy or the first three to six weeks following delivery.

The major indications for douches were concisely

(*Continued on page 128*)

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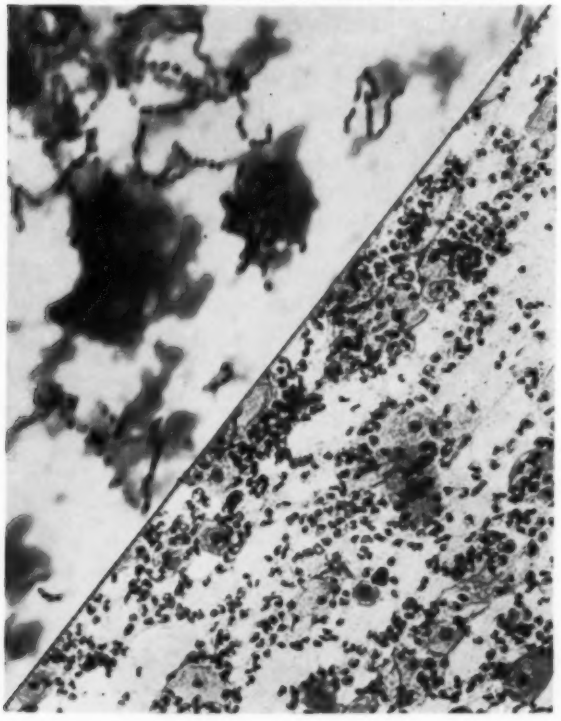

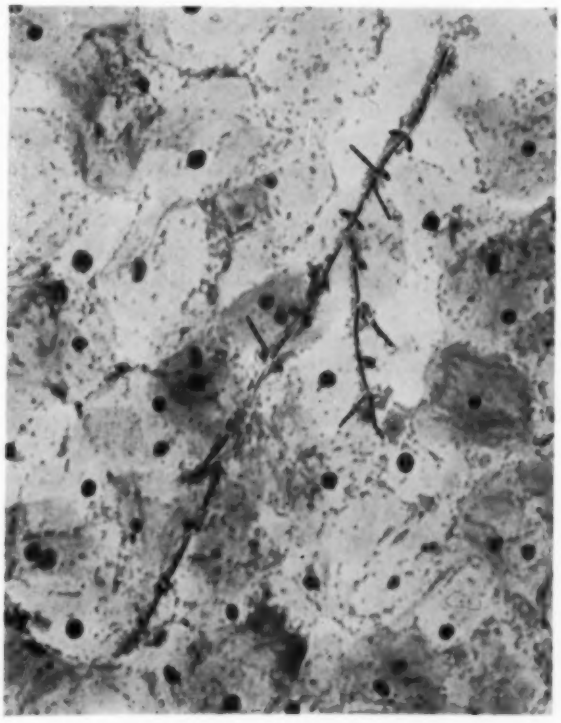

The Package Idea Precedes the Design

by John H. Forsman
PRESIDENT, C. H. FORSMAN CO.

THE creating and designing of packages starts with specific information for the artist. The manufacturer of the product must have some definite idea or motif that he wishes expressed. He must give to the artist his interpretation of the public which he wishes to reach . . . whether they be the sophisticated clientele or the masses. The manufacturer must supply the artist or the concern of the artist with a complete array of his established line so that there will be no repetition as to design or color. Of course, he may wish the motif or the type of designing to have the feeling or expression of his established packages.

The artist must be supplied with such information as to whether or not the design is to be highly stylized, if it is to be a conservative or tailored design, or one of a contemporary motif. The artist with this knowledge then can start to submit visuals. If he has a library containing an abundance of material, together with documents of all types of art, that lends itself to the designing of fine packages, he then is ready to submit suggestions with imagination.

Good Taste Is Good Designing

There is no such person as an authority to say whether or not the design selected will be successful. Of course, there are several ways of judging a design and that is to have your package design in good taste with expertly designed lettering. The birth of new colors that are usually attractive to the eye may be introduced, depending upon the ability of the artist to handle intensity if it should be desired as the keynote color and it must be interesting.

One of the reasons for designing a new package is because your present package has become outmoded or, then again, you may be launching a new product.

I would suggest not placing too much reliance on the criticism of a salesman or any individual to the effect that your present packages are out of style because your new, highly stylized design of today may take on an "old hat" appearance

within five years as the one that is now being criticised. Changes for the better and modernization of design should be continually foremost in your mind.
In this connection, imagine your automobile, icebox, radio or your own clothing of ten to fifteen years ago compared with those of today.
Now, how should the manufacturer go about finding a new design for his package? There are many channels of thought with which an artist can start working. He may start his sketch from an heirloom of your family's prize collection which may be a beautiful ceramic, laces, fabrics, wrought iron, or even a water color sketch that has a background and can inspire the imagination of the artist in whom you have confidence.

Trust the Designer

If you haven't any ideas to suggest as to the medium in which to develop the design, then leave this all-important phase of your packaging to a concern which has a competent art staff of designers and creators of ideas, together with the reproduction of quality printing, gold bronzing and embossing.
Don't make the mistake of going to an eminent portrait painter and expect him to create a package design. Usually his technique will not be adaptable.
Another "don't" is to permit an amateur artist to be the designer of a package in which you may have a large investment. Frequently, this method of creating a new package becomes very costly. Many expert artists are not always creative artists . . . still they may be skilled technicians in reproduction.
Don't be influenced by the success of a competitor's name in bold legibility and think this is the only feature that may be important to your package.
Your package must have warmth, as well as personality and sufficient command to attract attention in order to promote selling power.

(*Continued on page 135*)

The Physician and the Drug Manufacturer†

*by Edward B. Schlesinger, M.D.**

THE pediments of medical practice are an archaic seeming structure in a rapidly shifting twentieth century scene. At best they are a form of faith, at worst, the trappings which cloak deceit and deception. It is our earnest hope and belief that the body medical is not misusing its privileges. Mr. Ewing and his school think otherwise, and construe all our apprehensions and strivings as Machiavelian conniving. Any attempt to explain the basis of medical ritual and its goals he dismisses impatiently as insincere. I would like to believe that since he functions politically, he cannot comprehend an approach which has no ingredient of expediency or political advantage.

Mr. Justice Holmes remarked vividly upon the foundation of the English common law that it was not laid in jurisprudence or legal semantics but had its origin in generations of men learning the checks and balances necessary to protect man against organized society. This is the substance of what he said, but not his words. This is equally true of the ritual of the Hippocratic creed of medicine and the seemingly rigid code of conduct of medical practice.

The admonition against lay publicity in regard to medical advances and in particular personal medical contributions is as pertinent today as it was one thousand years ago. Sick people will grasp at straws and are not in a position to discriminate. When they read of miracle cures they or their loved ones feel the necessity of gaining access to them. If the drug is unobtainable because it is in an early stage of development the patients at least feel frustrated and baffled. If they wangle some at high cost they grumble about the evils of the trusts. Then lack of the expected cure leads to disillusion and inevitably distrust. What is the other face of the picture? The honorable physician, who tries to caution the patient against putting faith in the novel and relatively untried, is discharged in favor of one who will say, "It they want it, let them have it."

The corollary to this is the unpleasant fact that the original experimenter is bombarded with impossible-to-requite requests for help and in refusing them is considered heartless, or in yielding to demand gets into all sorts of mischief prematurely. There are, it should be said, some sophisticated gentlemen who understand these tools too well, and fertilize a dwindling practice or dwindling ego, if you will, by feeding the fires of publicity as necessary. I for one have never seen good come of personal medical publicity or premature announcement of new drugs. I have seen great havoc and disillusionment along with crippling distrust of the profession come out of such tactics.

I have been and will be frank. You know whereof I

*College of Physicians and Surgeons.
†Delivered at the Annual Meeting of the Parenteral Drug Association, October 26, 1951.

speak. Actually the situation is the product of a paradox. On one side the physician is presumably bound to the precepts mentioned above. He makes his living, I often think, only in spite of them. On the other side are the drug manufacturers. They are the achievement of twentieth century business practice. As such they are aware of (1) the urgency of solvency and (2) the vivid techniques of modern advertising which sell essential and unnecessary wares willy-nilly to the world. They would be blind if they did not recognize these facts and untrue to business practices if they did not use them. Altruism is a dividend they may declare but generally their dividend must be in hard cash or their owners will rapidly become poor house philosophers.

This dichotomy of approach—a philosophy of protection of the public based on thousands of years of experience versus the purely practical one of producing drugs and remaining solvent—is the gist of our problem and the basis of the traditional distrust of the drug house by the physician. Events move rapidly and alter concepts. In my student and internship days the number of specific drugs I used I shared with any good nineteenth century doctor: morphine, quinine, digitalis, strychnine, and a few others. Elegance was the keynote of the prescription, and elegance in presenting the same old formulae was the constant striving of the drug house. Any bombshell on the horizon was merely the dream of a new or energetic advertising department and the detail man was successful as a personality rather than a bearer of facts. There was little to alter traditional medical suspicion of new products.

The picture has altered with amazing speed. The drug manufacturers have presented medicine in rapid succession with the most spectacular group of specific agents in history—the antibiotics, the anesthetics, analgesics, muscle relaxants, and so on. More important still, their research projects have come of age. They are purposeful, and dedicated to scientific achievement even though wedded to commercial appeal.

The vast difference in the character of the pharmaceutical companies has changed the complexion of medical-drug house relations, probably for all time. The drug house has changed from a stepson to an older brother relationship, which I will dwell upon later.

I would like to discuss the factors that brought about the metamorphosis of the drug houses from glorified apothecaries to awesome institutions. One of the causes was the impetus of new discoveries and the orientation of research into new and fruitful channels. Another was the war and its terrible needs. A third, more mundane but nonetheless real, was the fact that wide-awake business men found in the drug industry a place where initiative, imagination and the willingness to take risks offered a yield of good profit margin and unlimited growth potential. Such an opportunity for uncramped growth is almost unique in the business world today. There is nothing wrong with the motivation of the drug houses; making a profit, all recent propaganda to the contrary, is part of the gear mechanism of our society. Our worry is the opposite side of the coin—what will happen to the normal, exciting urge to build a better, more profitable industry if the profit motive is removed or only allowed to remain as a trace-substance?

You all realize that research has paid for itself over and over again. That is easy to get across. The difficult thing, however, is not to convince you to spend money on research but to help you decide what kind of research to spend it on. It is sobering to realize that we Americans are ingenious at production and development but hopelessly outdistanced by other nations in original thinking and pure research. A quick glance at penicillin, sulfa drugs, and the antihistaminics will convince you of this pattern. Give American industry the bricks and they will build the house faster and more efficiently. But what about the fabrication of the bricks? What do we do so wrongly that we cannot foster original thinking and pioneer in new fields?

For one, the drug industry is not geared (with a few pampered and heavily window-dressed exceptions) to this type of research. It is not fair to expect it of industry. Its place, then, by inexorable logic, must dwell in the university where theoretically there is no urgency of time and overhead, and no stockholders clamoring to be fed. This was once the case but sadly it is no longer true.

(Continued on page 133)

Why compromise on QUALITY

WHEN BUYING PACKAGING MACHINES?

We have always felt that a package plays such an important part in SELLING that it deserves the very best. That means as near perfection in wrapping as it is possible to obtain. It means smoothly formed wraps, perfect sealing and proper handling of the wrapping material and product. Equally important, such perfection should be maintained whether production calls for only a small quantity or many thousands of packages per day. Notice, for example, the uniformly neat wrapping on leading cigarette packages, chewing gum, toilet soap, candy boxes, etc.—all of which are wrapped on PACKAGE machines.

Working to such a standard requires machines of high precision, constructed of the best materials. It requires many extra hours spent in designing by experienced and talented designers and engineers.

We also believe that to be a good investment, a wrapping machine should have a long life. There are, for example, PACKAGE machines that have been in service for over 20 years. Hundreds of manufacturers have found that machines built to these standards, though the initial cost may seem high, are far less expensive in the long run.

And to prevent early obsolescence as far as possible, PACKAGE machines are purposely designed to accommodate new improvements that we may make from time to time.

Today, maintenance of quality standards is more important than ever—in the packages you turn out, and in the machines you buy to do the job.

So remember, there are mighty good reasons why leaders in the package goods field have standardized with PACKAGE machines.

Put your problem up to "PACKAGE"

PACKAGES THAT SELL WRAPPED ON MACHINES THAT SAVE

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MACHINERY COMPANY
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ATLANTA · DALLAS · DENVER · LOS ANGELES
SAN FRANCISCO · SEATTLE · TORONTO · MEXICO, D.F.

Packaging and Selling

Children's Market

It is a little surprising that certain businesses, particularly in this industry, have not paid more attention to the children's market. There is enough evidence around that for many kinds of products this market is susceptible to real development and that the mere fact of repackaging a product which children can use has brought about many new users for the product.

At this time there is a very small plastic company operating with just one product which has received ratherh startling acceptance from the retailer and the consumer. The word startling is used because quite a number of the large, very fashion-wise department stores, which originally rejected this product with a series of pitying smiles were later persuaded to allow one package on the counter and were thoroughly startled to see how quickly it moved. Some of these stores are now ordering in gross lots at very frequent intervals. This plastic package is a children's medicine box. It's about ten inches square and about three inches deep and it has a very colorful door decorated with the Walt Disney type of figure. This little box with two shelves has a small plastic cup, two tooth brushes, one marked "Good Morning" and the other "Good Night" and a small tube of tooth paste. A plastic sticker makes it possible to put this box under the medicine cabinet or on the wall beside it. Probably its appeal to both the parents and children is that it makes a game out of brushing the teeth.

Hudnut has had a spectacular success this year with its cold wave for children and Helene Pessl has established a very firm position in this market.

It would seem that many products lend themselves in a packaging and promotional way to a direct appeal to children, by giving them a product which appears to be made and packaged just for them.

Smell

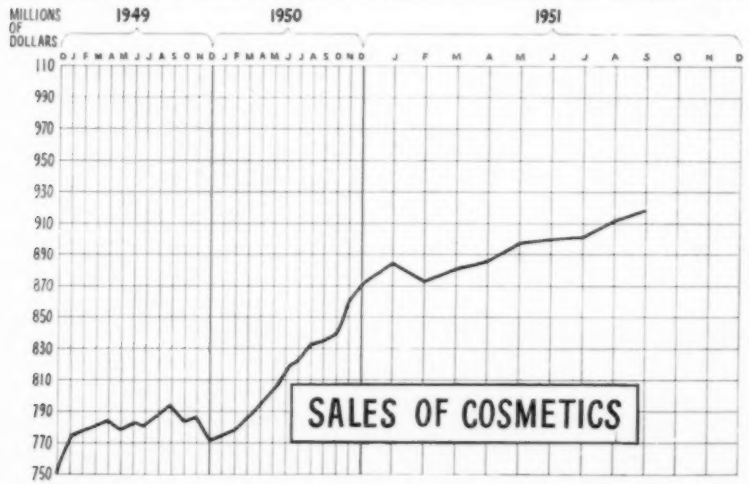
The sense of smell is playing an increasingly important part in American life and is stimulating a great deal of new industrial activity. Unfortunately for American culture this increasing activity is not going to the perfume industry but is heavily devoted to the removal of odors.

For instance, a Canadian Company is just putting on the market Odor-Ban, an electrical deodorizer for the kitchen, sick room and bathroom. At the same time, the Quaker Oats Co. has started a heavy national advertising campaign for Ken-L Dog Foods, to which deodorizing chlorophyllin has been added. According to the company, a dog will still smell like a dog to another dog but he won't smell that way to the owner.

The Westinghouse Electric Corporation has just put on the market Odorout, a bulb which generates ultra-violet lights through a special glass and turns stale air into fresh air by molecular action which also "chases and destroys objectionable odors."

Add all of these new deodorant devices, largely for use within the home, to the dynamic growth of the personal deodorant and it is plain to see an active, growing consumer interest in the removal of unpleasant and obnoxious odors from the person and the home. So far the perfume industry has not been able to step into this new gap on any proportionate basis of encouraging the use of pleasant, agreeable odor after the disagreeable odor has been removed. This is particularly true in the American home where the various feeble and half-hearted attempts to bring fragrance into the home has met with no perceptible success.

Retail sales of cosmetics for the twelve months ended with September 1951 totaled $918,268,000. This compares with $911,880,000 for the twelve months ended with August 1951 and with $835,760,000 for the twelve months ended with September 1950.



Self Service Packages

Self-service retailing is presenting new problems to the packaging industry. There was a time when this type of merchant had a favorable margin of operating costs, but the present pinch which is developing from increasing wages and other factors is forcing on these stores many rigid operating economies.

For these reasons goods arriving at the store are given much less careful inspection and are pushed along to the retail counter more rapidly and with less care. Damaged packages are therefore seen with growing frequency on the shelves.

While it would be up to the retailer for his own selfish interest to solve this

Sheffield—first to put toothpaste in tubes, in 1892—has served packagers for over half a century in producing billions of tubes for—

MEDICINAL ointments — salves — jellies—extracts.

DRUG AND COSMETIC pastes—creams — shaving preparations — deodorants—depilatories.

INDUSTRIAL AND HOUSEHOLD cements — adhesives — compounds — greases — paints — fillers — food pastes, syrups, and creams.

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Through periods of ready supply and shortages alike, hundreds of leading firms have relied solely on The Sheffield Tube Corporation to furnish all their tube requirements. Why not place your confidence in Sheffield's century-long record of service!

You can depend on Sheffield's continuity of manufacturing experience to produce *value* all the way. Call on the Sheffield representative nearest you for information and assistance.

All types of tin, tin-coated, aluminum, lead, and Sheffalloy tubes. Free samples, and catalog. Remember, packaging in Sheffield Tubes gives your product a container that is . . . Sturdy • Safe • Sanitary • Smart • Convenient.

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Y. C. SHEFFIELD LOS ANGELES 38, CAL., 7024 MELROSE AVE.

EXPORT: 500 FIFTH AVE., N. Y. CABLE "DENTIFRICE", NEW YORK

New England SHEFFIELD PROCESS TUBES

problem, there is certainly a growing reason for the packager to study every possible way to produce packages which are more and more fool-proof in careless handling.

Cosy Retailing

Although color has developed into a predominant factor in the selling of such things as homes, automobiles, household accessories and in numerous other fields of merchandising, it has not as yet entered into retailing as a primary psychological factor in creating a favorable sales environment.

A supermarket in Philadelphia has employed a nationally known engineer to re-design the store in such a way as to aid impu'se buying and to provide the right kind of atmosphere to make custcmers spend more time in the store and to get the habit of returning to the store.

Special Promotion

A special cosmetic and toiletries promotion directed to the nation's 19,000,000 working women features a kit of grooming products developed by Helena Rubinstein and inspired by CHARM Magazine. Designed with point-of-sale appeal, the "Top Drawer Beauty Box" was conceived to serve the working woman who needs cosmetics and toiletries for her dressing table at home, her handbag and her desk drawer. Projected as a two-page feature in the January issue, "Top Drawer Beauty Box" was planned as an item promotion to stimulate post-Christmas sales and to bolster refill business for the Helena Rubinstein line throughout the year.

More than 60 selected stores throughout the country will back up the "Top Drawer Beauty Box" promotion with ads, displays, and tie-in fashion shows, the latter based on CHARM's "You Asked For It" fashion pages or the January issue theme, "Miracles for You."

Retailing for $4.95, the kit is made of simulated wood, designed with a cover that imitates a collection of file-folders tabbed: eyes, lips, nails, skin. The top tilts back revealing a mirror, skin-cleanser, tissues, face powder, lipstick, mascara, nail polish, emery board and stick cologne; all liquid products packaged in spill-proof containers.

Lord and Taylor was among the stores which had major promotional tie-ins to introduce "Top Drawer Beauty Box" on January 1st.

Strawbridge and Clothier in Philadelphia is planning shows for local business women on February 16 and 29. For the week of February 11, a special Rubinstein consultant will be present in the cosmetics department and advertising will feature the Beauty Box and "Top Drawer" fashions.

Stores in other parts of the country which are planning shows directed to local working women include J. L. Hudson in Detroit; Kresge's in Newark; Stix, Baer and Fuller in St. Louis; Mandel Bros. in Chicago; The Boston Store in Milwaukee, Denver Dry Goods; and J. W. Robinson of Los Angeles.

In addition, Marshall Field, Carson Pirie Scott, Wm. H. Block, Frederick and Nelson, and The Bon Marche are planning advertising campaigns and

special displays to promote the Beauty Box.

A promotion kit will be distributed by Helena Rubinstein to help stores in their campaigns. It will include two suggested ads, a reprint of the CHARM feature and will set a pattern for fashion shows, interior and window displays.

M-51

Perfume and cosmetic manufacturers are relieved to hear that they are no longer bound by the restriction of N.P.A. Order M-51 which prohibited them from the creation of new designs of glass containers and which limited the manufacture and use of glass containers to designs in existence or to standard simplified designs. Once again the perfume and cosmetic manufacturer has no limits on the range of his imagination in designing his glass container and in making use of a private mold for his new and original creation.

The original purpose of this order from the National Production Authority, which took effect March 31st, 1951, was to increase the supply of glass containers for packaging. It was not considered at this time just how this order worked a very serious hardship on perfume and cosmetic manufacturers as compared to all other users of glass containers and at the same time that the percentage of glass and production time going into private molds was so minor a fraction of the entire output of the glass container industry, that the trifling amount of time or material saved hardly justified the hardship it brought about.

A great deal of testimony has been submitted to Washington and this testimony finally provided the basis upon which the order was rescinded. Among those most active in gathering and submitting this testimony has been H. H. Mills of the T. C. Wheaton Co. This company, which has long been a specialist in the glassware used by this industry and has been particularly active in the kind of special designed glassware used by perfume and cosmetic manufacturers, detached Mr. Mills from his regular duties in order to give him time to study this situation and to present to Washington the kind of material which would convince them that the restrictions in this Act were bringing hardships that were not compensated by any needed extra production of glass containers.

Who's Who on the Shelf

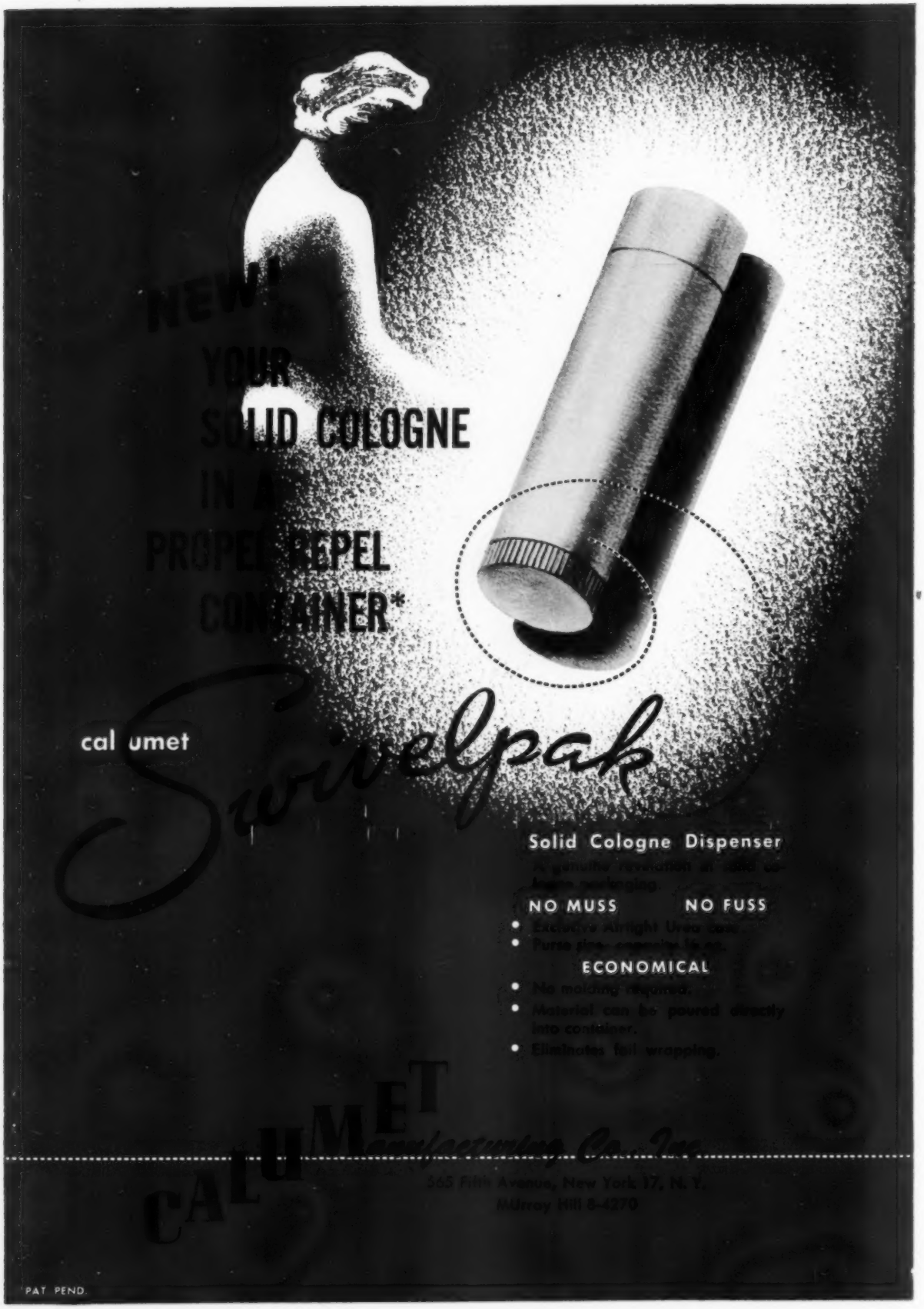
As an indication of the tough fight that is coming for shelf space take a look at the discussions which recently took place at the meeting of the Canners' Association.

Twenty years ago canned foods occupied about 75 per cent of the grocer's shelf space. Now they occupy only 15 per cent. The cause of this, according to canners, is the big multiplicity of new products that are entering the grocery store and the fact that many of these products offer the store a much better mark-up.

Self-service places a premium upon desirable shelf space; often a huge premium. Apparently the canners are determined that some of these non-food items are not going to continue to grab their preferred shelf space.

Jumbo Package

Jumbo packages usually arrive during periods of falling consumer demand. Their primary and often their only basis for existence has been an actual saving in money by purcha ing in this way. Although jumbo packages should be an


NEW!
YOUR
SOLID COLOGNE
IN A
PROPELLENT
CONTAINER*
cal umet
Swivelpak
Solid Cologne Dispenser
NO MUSS NO FUSS
ECONOMICAL
CALUMET
PAT. PEND.

appeal at this time when there is a prevailing belief in retail circles that the customer is becoming an impatient shopper and is concerned over the time consumed in a sales transaction, it is still savings in pennies that make the jumbo package enough of a turnover item to justify its existence.

A recent retail survey by an advertising agency developed the general opinion that jumbo packages were good even in times of free spending but were much better in periods described as "tougher".

Misc.l

Don't be misled by store surveys showing an increasing number of men visiting supermarkets. Most of them are drug salesmen.

A leading tooth paste maker is reported to be selling 55% of its toothpaste in food stores.

According to Supermarket Merchandising, sales of drugs in supers has sprouted from $128 million in 1948 to an estimated $450 this year.

Magazines, fifth in drug store volume, are now on sale in 3,500 super stores. And growing.

Two-thirds of the United States population make under $4,000 a year. Sixty per cent have savings under $500.

Survey by N.A.R.D. shows average unit sale in nation's drug stores during the year is fifty cents. Sixty per cent of customers are men, twenty-five per cent women and fifteen per cent children. Query, what per cent of floor and counter space are used for goods women buy?

Some metropolitan department stores are really hurt by the way Santa Claus treated them this year. They blame, most of all, city sales taxes and suburban stores. Also they don't like the way delivery costs are booming. Nearly every buyer living outside city tax limits now has the package delivered.

Consumer expenditures for beauty and barbershop services amounted to $1,050,000,000 for 1950.

S. S. S. Co., after 125 years in business, believes that its tonic, sold through wholesalers, is stocked by more than 50,000 druggists. The company has no salesmen on the road, is a long time, continuous advertiser.

Schenley's New Package Design

Schenley Laboratories has developed an open-faced container to provide a multi-purpose carton suitable for many of the company's 105 drug products. The carton itself carries only the company name, and the label on the bottle placed within the carton becomes the package label as well. Jack Burman, chief package designer for the company, estimates that the innovation will save Schenley thousands of dollars annually in container costs.

Export Energy

The J. B. Williams Co. have just contracted for an advertising campaign which is said to be the largest number of pages ever placed by one advertiser in one consumer publication. The J. B. Williams Co. has contracted for 360 pages to run in eighteen international editions of the Reader's Digest. These pages will feature Williams Luxury shaving cream, Glider, Skol and Aqua Velva.

Growing Pains, Or What?

The Big Owl Drug Market in North Hollywood is the latest step in evolution among the drug chains to stay within the current trend of changing retail fashions. This new unit of the Owl Drug Company has a shopping area of 44,000 square feet and displays for sale not only a complete line of drug, cosmetic and grocery products but, on a lease basis, includes a bakery, a candy shop, liquor, tobacco, dry cleaning, pen and camera shop, a 12-chair barber shop and a gift shop. Included with all this are other services such as jewelry repairing, check cashing and a soda fountain.

Not long ago the joint operation of an Owl Drug Store with a grocery supermarket in Santa Ana was discontinued. In this operation, although both the drug and the grocery unit were under the same roof and had the same checkout, they were operated in two departmental stores each retaining its own identity.

Under this arrangement quite a number of products were duplicated in inventory and were in competition with each other under the same roof. It is generally believed in the trade that this side-by-side venture of the drug store and the supermarket gave unqualified proof of the superior advantages of the grocery supermarket operation and the volume of its traffic. Where such products as many kinds of toilet preparations, some drug products, candy, tobacco and other items, were available to two streams of traffic, the stream which centered on the grocery section appears to have made the drug division unprofitable on the basis of the volume that was left to it.

This new Owl venture is an integrated store, where such things as toilet preparations will be available in only one place with the one single inventory and exposed to the traffic which enters that one single store.

This new venture of Owl will be very interesting to watch because it will clarify the different problems in retail arithmetic which both drug chains and grocery supermarkets must some day face. That arithmetic will cover such things as the number of transactions per square foot the volume of business per square foot and the profits per square foot.

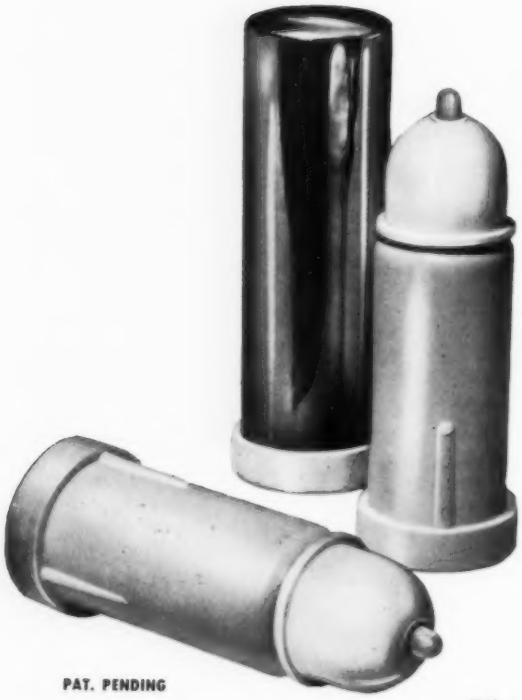
On the one hand, if it develops that the toilet preparations department produces more volume in dollars and cents and particularly more profits per square foot than some of the food products divisions, it would seem that there would be a growing trend on the part of food markets to develop this kind of department. We have already noted that the Canning Association has become very perturbed at the amount of space allotted to canned goods in the supermarkets of today as compared to the space which they held ten years ago.

If on the other hand, such a department as toilet articles, which until the last few years has been alien to a grocery store environment, fails to measure up to the requirements of a square foot in supermarket, then the entire reason for combining the drug and the grocery retail business will lose weight and will probably not continue the current trend.

In the meantime this can not be a very happy situation for this particular com-

RICHFORD SPILLPROOF PERFUME FLACONS

The magic, purse-sized perfume flacon still making sales history is now joined by a new Richford Creation, also destined for fame.



PAT. PENDING

RICHFORD TOUCH-N-FLO*

PURSE DISPENSER

*TRADE MARK

The one perfect purse container for Lotions, Cream Sachets, Liquid Soaps, and Deodorants, etc.

TOUCH-N-FLO will not leak, yet the contents flow easily with a gentle touch to the skin. Unbreakable plastic bottle and sure-acting dispenser handsomely covered with a snug gold metal cap. Contents 10 cc.

Write for Samples and Prices.

THE RICHFORD CORPORATION
251 FOURTH AVENUE NEW YORK 10, N. Y.

pany. Many Rexall franchise holders are undoubtedly watching this development with anxious eyes and although they have been assured that this new store is the only one of its kind planned, many can not help but feel that this particular store is the second step in a plan to find an operating formula which will permit expansion of the chain, rather than a fight for status quo.

Ecstatic Pigs

Research is producing some very strange surprises. One of our leading pharmaceutical companies has just come up with what is called a Pig-Symphony. This symphony is a record of the mother pig's grunts and the squealing of baby pigs as they eat. This recording is played automatically in the laboratory for two minutes every hour, day and night to awaken the young pigs so that they can drink their Terralac.

We used to have contented cows. Now maybe we will see an advertising campaign based upon ecstatic pigs.

Food Demonstration

Demonstrations are paying out in the big new food markets in a very real way and will probably increase substantially. However this industry, with much slimmer sales margins is moving about demonstrations in a very different way from that practiced by the cosmetic industry.

Most food demonstrators are furnished by outside companies which specialize in furnishing the trained personnel and in installing the demonstration on a regional or national basis.

In a recent test made for a soft drink, of 100,000 people entering the store, 70 per cent sampled the drink and one-third of that number purchased. One of the prominent companies handling demonstrations claims that this method will sell twice as many housewives as the coupon method, however employed and that three times as many will take a sample.

Proportionately Equal

One of the striking things about the new Trade Practice Rules for the cosmetic industry is that the FTC has now conceded that a substitute benefit in place of the demonstrator may be offered to other stores provided, of course, that this benefit be worked out on terms that are proportionately equal to each store.

It should be noted here that for the last ten years Coty has been working on the basis of a sales operating plan of precisely this kind and that the company has consistently and openly challenged the FTC to find any basic violation of the Robinson-Patman Act in this method.

There is little question that Coty's long stand in interpreting the law in this way and in openly operating on this basis has had a great deal to do with the final equitable interpretation of this particular part of the act.

Home Wave for Children

The Toni Company has come up with a new Tonette Children's Home Permanent in the form of a refill kit containing four ounces of special waving lotion, 72 end papers, a one-ounce tube of Toni Creme Shampoo, and simple directions. There is also a push-out paper doll book to keep every little girl amused during her permanent.

Pinkham Advertising Plan

The Lydia E. Pinkham Medicine Company announced a sharp and accelerating increase in sales during the last quarter of 1951. It was attributed to the new advertising strategy which was started last August, according to Charles Pinkham, company spokesman. He pointed out that the company experienced a 10 per cent increase in sales almost as soon as the new advertising plan was started. December sales were up even more, so that this past quarter was one of the best in Pinkham's recent history.

Instead of relating advertising to population figures, the company based the size of the budget in each local market on the actual sales history and sales development of that area. The ratio of sales to expenditures in each market has been checked monthly in accordance with the agency budget control policy.

Trends in U. S. Economy

"Regional Trends in the United States Economy" is a book just published by the Commerce Department. This is a detailed study of each of the seven major United States regions. Data includes comparisons of per capita income, rate of income growth and a large assortment of economic data which provides a valuable source for the kind of data needed to study markets and set sales quotas.

New Deodorant Soap

John T. Stanley Co., Inc., plans to introduce a new deodorant soap under its own label.

Bath Scent

Almay, division of Schieffelin & Co., is working on *Pine Bath*, a hypo-allergenic bath scent which is said to relieve tense nerves and muscles.

Kreml Advertising Plan

A new approach to hair tonic advertising is exemplified in R. B. Semler's campaign for Kreml Hair Tonic, which first appeared in the January 7th issue of *Life*. The campaign, prepared by Monroe F. Dreher Inc., highlights Kreml's floating oil feature as a product advantage. It acts as its own display, with the grooming agent on the top portion of the bottle as a lemon-yellow oil, and the conditioning agent, on the bottom as a colorless liquid. Two-color black-and-yellow advertisements for the Kreml campaign dramatize the separation quality of the hair tonic, while the advertising copy brings out that the product, when shaken before using, blends two ingredients together in one balanced formula, with each ingredient doing its job of grooming as if separately applied.

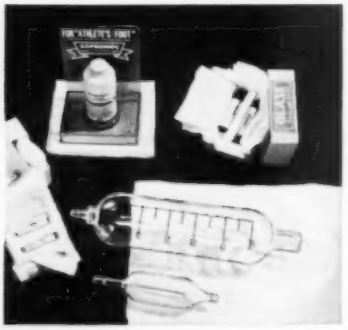
Small Spray Atomizer

The Skwish Corp. has developed a lipstick size spray atomizer which is easily operated with one hand. It is refillable, and may be used for perfumes, antiseptic, or deodorants. Attractively designed, it may be carried in the purse or pocket, and operates in any position.

Custom Protection —the safe, smart way to package pharmaceuticals

ACTHAR, prepared by Armour Laboratories, Chicago, Ill.

Assorted Shipments, Parke, Davis & Company, Detroit, Michigan.



Assorted Pharmaceuticals, prepared by Wyeth Inc., New York, N. Y.

How easy it would be for these costly medical supplies—or any pharmaceutical product—to arrive at their destinations unfit for use! Shock, vibration, moisture—any one or all of these hazards could cause irreparable damage to a single shipment. Yet damage rarely occurs because so many manufacturers have found the safe, positive protective measure in Kimberly-Clark Interior Packaging—KIMPAK*. It provides *custom protection* for any kind of pharmaceutical.

KIMPAK is soft, clean, feather-light—as easy to apply as wrapping paper. Because KIMPAK will absorb up to 16 times its own weight in moisture within 30 seconds, it is widely used as an absorbent packaging material in the mailed sampling of liquids to physicians. Available in rolls, sheets or pads, there is a specification for every conceivable problem, whether you package pills, tablets, capsules, or liquids in bottles, tubes, vials, ampoules. But KIMPAK not only acts as a cushion to float your product to market damage-free, it also serves as a decoration to make—and *keep* your package attractive.

For complete information and help regarding your packaging operation, write to Kimberly-Clark Corp., Neenah, Wisconsin.

Thephorin Lotion, prepared by Hoffman-LaRoche, Inc., Nutley, N. J.

Kimberly-Clark
INTERIOR PACKAGING

Doin's ...

Sharp & Dohme has released a new veterinary caudal anesthetic, Cyclaine (Veterinary) Hexylcaine Hydrochloride, which produces complete anesthesia of the pelvic organs and the tail region in from three to five minutes.

Elizabeth Arden will next month feature her creams, lotions, and oils as basic essentials for the care of the skin. They will be banded together with ribbon into six separate "Precious Pairs", each pair representing a condensed basic beauty ritual.

Lever's new home permanent, Shadow Wave, was recently introduced. It is packaged in a home-permanent carton, the outside of which is illustrated with the head of a woman. The carton is made by Robert Gair Co., Inc.

Schenley Laboratories has placed Dorbane on the market, a new and improved laxative, which is available in tablet form for adults and in orange-flavored "confets" for children. It may be dispensed only on a physician's prescription.

Lederle has announced a new enheptin product for the treatment of blackhead in turkeys, in the form of Enheptin Tablets. This supplements Enheptin Premix and Enheptin Soluble.

Abbott has released Thaloctin Suspension, a new enteric bacteriostat containing phthalylsulfacetimide, kaolin, and pectin in an aqueous vehicle. It is indicated in the treatment of acute enteritis, bacillary dysentery, diarrhea of the newborn, and similar conditions.

Upjohn has made important changes in its Super D Concentrate, now called Super D Drops, and Super D Perles. In the new formulas the vitamin A and D activity are supplied entirely by vitamin A palmitate and pure vitamin D^3, which are identical to the vitamins obtained from fish oils, but lack the characteristic fishy taste.

Armour Laboratories announces that the intravenous administration Acthar, its brand name for ACTH, has been approved by the Council on Pharmacy and Chemistry of the American Medical Association.

Chas. Pfizer & Co. has reduced the price of stabilized, synthetic Vitamin A acetate, Crystalets, from 20 to 17 cents per million units, and Vitamin A palmitate from 18 cents to 15 cents per million units.

Hazel Bishop has introduced Complexion Glow, a companion product to Hazel Bishop No-Smear Lipstick. This creme does not cake, streak, clog, or blotch; it is featured in three shades, Pink Glow, Coral Glow, and Rose Glow.

Helene Curtis Industries have repackaged their Milky Shampoo and Shampoo Plus Egg. The 4-ounce sizes now retail at 59c, and the 8-ounce sizes, at $1.

Bristol Laboratories, Inc. have introduced to the medical profession Dihydrostreptomycin Otic with Bristamin, a new ear drop formulation effectively combats both bacterial and fungous infections.

Bymart-Tintair will greatly expand its promotion of Tintair in 1952 with more newspaper advertising, coupled with network television and radio programs plus color magazine and Sunday Magazine advertising.

B. F. Ascher & Co., Inc. are distributing Bexosal Tablets, containing salicylamide, dl-desoxyephedrine hydrochloride, thiamine hydrochloride, riboflavin, niacinamide, and ascorbic acid. The tablets provide effective analgesia and sustain vitamin intake.

Bourjois is planning the largest advertising campaign for Evening in Paris perfume that it has ever undertaken. It will extend through the first half of 1952. Two-color ads will appear in leading national magazines reaching more than 54 million readers.

E. Fougera & Co. has developed Efocaine, a non-oily solution for prolonged prevention of pain, a single injection of which provides safe local anesthesia for 6 to 12 days or more.

Winthrop-Stearns Inc. is now distributing Hidex supplemented with iron in the form of ferrous gluconate. It is a high-dextrine carbohydrate food for complementing the formula for the bottle-fed baby and provides the infant with a positive iron balance.

Richford Corp. has introduced a new purse dispenser for hand lotions, cream sachets, liquid soaps, and deodorants. It is named "Touch-N-Flo."

George A. Breon & Co. has prepared Doxychol-AS Tablets, a biliary stimulant with spasmolytic and sedative properties.

Revlon plans to enter the skin treatment field in 1952 with the introduction of four new cream lotions.

Wallace Laboratories, Inc. announce the availability of Bactratycin, a tyrothricin cream, in an improved form which is stable indefinitely.

Lehn & Fink is packaging Hinds Honey & Almond Fragrance Cream in a new plastic squeeze bottle which is being distributed to druggists and other dealers throughout the Country.

Consolidated Cosmetics has added Lanolin Plus for the Hair to its Lanolin Plus line. It is a dressing, stimulator, and conditioner designed for men, women, and children.

Helena Rubinstein has announced a feather-weight atomizer of aluminum, colored in pink gold with a satin-like finish. It will retail at $1.25.

Walker Laboratories has released Chloragel Tablets, containing chlorophyll fractions Aluminum Hydroxide Gel, and Magnesium Trisilicate. They are for the treatment of hyperacidity and the medical management of peptic ulcer and alleviate gastric distress promptly.

helping to guard the quality of your product...

THE QUALITY OF *YOUR* PRODUCT depends in important measure on the quality of the Essential Oils, flavors or perfuming materials that go into it.

That is why MM&R maintains the most modern quality control system in the world for safeguarding the quality of Essential Oils and kindred products. Our technicians are constantly testing and analyzing, checking and rechecking to make certain that every MM&R product lives up to our highest standards...and yours!

And because MM&R is a prime producer, direct importer and manufacturer, prices are always right. Let us quote on your requirements now.

Builders of Product Preference through
QUALITY ESSENTIAL OILS
PERFUME OILS · FLAVORS
ODOR NEUTRALIZERS
BALSAMS · OLEORESINS · COLORS
SINCE 1895

MAGNUS, MABEE & REYNARD, INC.

SINCE 1895 ONE OF THE WORLD'S GREATEST SUPPLIERS OF ESSENTIAL OILS

16 DESBROSSES STREET, NEW YORK CITY • 221 NORTH LASALLE STREET, CHICAGO

SAN FRANCISCO: BRAUN-KNECHT-HEIMANN CO. • LOS ANGELES: BRAUN CORP. • SEATTLE, PORTLAND, SPOKANE: VAN WATERS & ROGERS, INC.

A BETTER DROPPING PART MAKES A BETTER PRODUCT

#1

#2

#3

#4

To Be SURE Your Liquid Preparation Can Be Properly Dispensed

SPECIFY

New Perfection

DROPPING PARTS

Many a fine product has been rejected by the public simply because some seemingly small detail was below standard. The dropping part can be such a detail—an apparently simple device, yet vital to the user's satisfaction.

Since 1931, when Pennsylvania Glass originated the screw-cap dropping part, we have specialized in this important dispensing unit. This advantage in experience and specialization has made NEW PERFECTION Dropping Parts everything their name implies. Longer experience and undivided attention to one product have resulted in superior quality and reliable performance. To be sure of the best—specify NEW PERFECTION Dropping Parts.

We can supply various colors of bulbs in natural rubber or in our special oil-resisting Amekine compound, caps of plastic or metal in many sizes and colors, and various types of dropper glasses in any length with calibration in any color or plain. New Perfection dropping parts will fit your own bottles, or can be supplied in combination with our Modernistic bottles in Amber, Blue, Green or Clear glass. Sizes: 2cc, ⅛, ¼, ½, 1 and 2 oz.

Write for Samples and Quotations

PENNSYLVANIA
GLASS PRODUCTS CO. INC.

"Glass Goods of the Better Kind"

430 N. CRAIG ST. • PITTSBURGH (13), PA., U.S.A.

New Aerosol market study in number of

Nationwide "Freon" survey shows more dealers now stock pressure-packed products

When more than 2,000 retail dealers were personally interviewed during the recently completed fifth annual Du Pont survey of the aerosol market, 75% reported that they are now stocking one or more pressure-packed aerosol products.

This represents an increase in retail outlets of 76% over a similar tabulation obtained in 1947 when the first "Freon" aerosol market survey was conducted.

The study shows that dealers in six principal retail-trade classifications—drug stores, department stores, food stores, hardware stores, variety or 5 and 10¢ stores, and auto supply or service stations—have recognized the sales potential of this new, modern way of packaging many products heretofore sold in other type containers.

Dealers, obviously, welcomed the appearance of these new aerosol products and have profitably featured them in their stores.

THINK HIGHLY OF AEROSOL PACKAGING. Asked their opinion of pressure-packed aerosol products, more than 80% of the dealers interviewed in all six categories of trade said they believe this method of dispensing is better and more effective than older methods.

This attitude is further reflected both by their comments and the enthusiastic way in which the majority of retail dealers have merchandised various kinds of aerosols.

CONSUMERS AGREE. Up to 93% of these progressive merchants also stated that few, if any, of their customers had voiced dissatisfaction with aerosol products for either household or personal use.

Here again, the "Freon" aerosol market survey shows that a large percentage of dealers who stock and sell aerosols and consumers who buy and use these products are favorably impressed with them . . . an important point for the manufacturer considering the introduction of one or more pressure-packed products.

SALES BETTER THAN LAST YEAR. To the question—"How do your aerosol-product sales this year compare with those of last year?"—a total of 44% of the

DU PONT
REG. U.S. PAT. OFF.
BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

"FREON" SAFE

reveals steady increase retail outlets

dealers who stocked aerosols both years replied that their sales had shown substantial gains. Another 44% said that sales were probably "about the same."

A breakdown by dealer classification indicates that these sales increases were made in all six types of retail outlets studied, and in some instances better than 50% (department stores, for example) reported sales far ahead of the previous year.

DIGEST OF AEROSOL SURVEY—*FREE*

Purpose of this fifth annual Du Pont aerosol market survey is to provide the industry with timely data relating to dealer and consumer attitudes and reactions toward this relatively new method of packaging various products.

Previous "Freon" market studies were so well received, informative and helpful that we have been encouraged to prepare a booklet digest containing all the salient facts developed by this latest survey of the market.

A copy of the digest, "The Aerosol Market," will be sent free upon request on your letterhead. Address: E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, Wilmington 98, Delaware.

"FREON" PROPELLENTS . . . A BIG FACTOR IN GROWTH OF AEROSOL INDUSTRY

Ever since the first "Freon" pressure-packed aerosol product—an insecticide—appeared on the domestic market, users have been enthusiastic about this modern method of dispensing.

The product immediately proved convenient and easy to use . . . without fuss or muss. It proved effective and more economical (when properly used) than similar products packed in other type containers. And it proved entirely safe . . . an essential characteristic of any aerosol.

"Freon" propellents (products of the Du Pont Company) are ideal for aerosols, and their use in pressure-packaging many different products has helped stimulate the rapid advance of the industry.

"Freon" propellents are safe . . . nonflammable, nonexplosive, virtually nontoxic, harmless to fabrics and finishes, chemically pure and thoroughly dependable. There are several "Freon" propellents, and they can be formulated to meet the exact requirements of any pressure-packaging you may be considering. Complete information about "Freon" propellents and their use will be sent upon request.

PROPELLENTS

KINETIC
REG. U. S. PAT. OFF.

"FREON" is Du Pont's registered trade-mark for its fluorinated hydrocarbon propellents.

SPRA-TAINER Does It Again!

Stops Insects DEAD!

Shell Tox, a product of Shell Oil Company, makes the most of modern design. It's pressure packed to s-p-r-a-y from *SPRA-TAINER*, original and leading lightweight propulsion can. "No Side Seam — No Top Seam."

SPRA-TAINER is an example of Crown leadership in the creation and manufacture of fine cans for all uses.

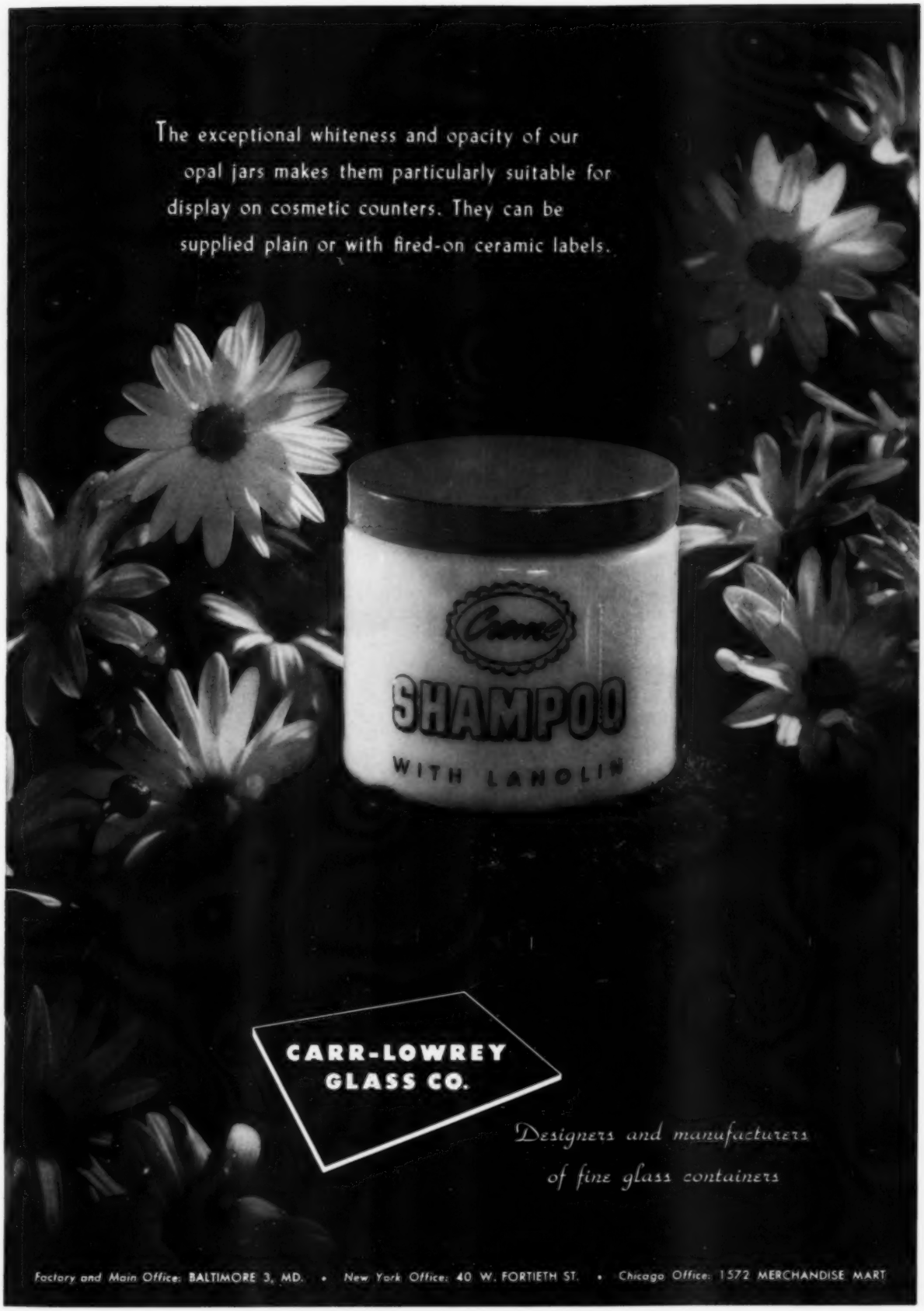
One of America's Largest Can Manufacturers

CROWN CAN

Division of

CROWN CORK & SEAL COMPANY

PLANTS AT PHILADELPHIA, CHICAGO, ORLANDO • BRANCH OFFICES: NEW YORK, BALTIMORE, PITTSBURGH, ST. LOUIS


The exceptional whiteness and opacity of our opal jars makes them particularly suitable for display on cosmetic counters. They can be supplied plain or with fired-on ceramic labels.
Cream
SHAMPOO
WITH LANOLIN
CARR-LOWREY GLASS CO.
Designers and manufacturers of fine glass containers
Factory and Main Office: BALTIMORE 3, MD. • New York Office: 40 W. FORTIETH ST. • Chicago Office: 1572 MERCHANDISE MART

good
bottles

FOSTER FORBES

GLASS COMPANY, MARION, IND.

such beauty deserves the best

Fine face powders are made best with Sturge Precipitated Calcium Carbonate. Highest purity and uniform grades make it an ideal powder ingredient. Light and buoyant, it gives a matte finish when applied to the skin and its particle structure permits fresh and lasting perfume retention. The producer, John & E. Sturge, Ltd., of Birmingham, England, will meet your special density requirements. Write today on your company letterhead for a sample and further information.

specify

STURGE PRECIPITATED CALCIUM CARBONATE

for Cosmetics & Toiletries · Paper Coating & Coating · Paints & Distempers · Rubber & Plastics · Drugs · Fermentation Processes · Printing Inks

SOLE DISTRIBUTOR:

H. J. BAKER & BRO. 600 FIFTH AVENUE NEW YORK 20, NEW YORK

America's Fast-Growing, "Old," Fine Chemical House Moves t Large Plant in Newark, New Jerse

with new offices at 50 Church Street, New York 7, N. Y.

REAL growth and progress have again been demonstrated by the removal of The New York Quinine & Chemical Works, Inc. from the country's oldest chemical manufacturing site to the most modernly equipped plant in Newark, New Jersey.

Since its acquisition four years ago by S. B. Penick & Company, NYQ's business has grown in volume and scope. The abandonment of the site where saltpeter and gunpowder were manufactured for the American Army in Revolutionary days has become a necessity, and the removal of NYQ to its new location, providing greatly enlarged facilities, has now taken place.

NYQ, whose own origin dates back to 1886, has become a symbol for the best in quality and service as "The Full Line Fine Chemical House."

Under the direction of the parent company and the present management of NYQ, two old traditions in the drug industry have combined their resources in the name of progress. With a successful history of its own, under the ownership (until 1925) of McKesson & Robbins, Inc., NYQ can now look forward, with its increased facilities, to greater service to manufacturers of this country, and abroad, and the public that benefits from these fine traditions.

NYQ

Acetanilide U.S.P.
Bismuth Subnitrate and other Bismuth Salts
Codeine and its Salts
Diacetyl-Morphine
Iodoform

The New York Quinine and Chemical Works, Inc.

Manufacturers of
STANDARD MEDICINAL CHEMICALS

135 William St., New York

NYQ

Morphine and its Salts
Potassium Iodide
Quinine and its Salts
Strychnine and its Salts
Thymol Iodide

This advertisement of 1921 featured what were then the most important products of NYQ.

Today the firm has expanded its line to embrace 2,000 chemicals for manufacturers in the pharmaceutical, industrial, agricultural and allied field

Old Brooklyn plant of NYQ, which has now given way to the demands of industrial progress.

Progress....

...The American Way of Life!

The Full Line Fine Chemical House

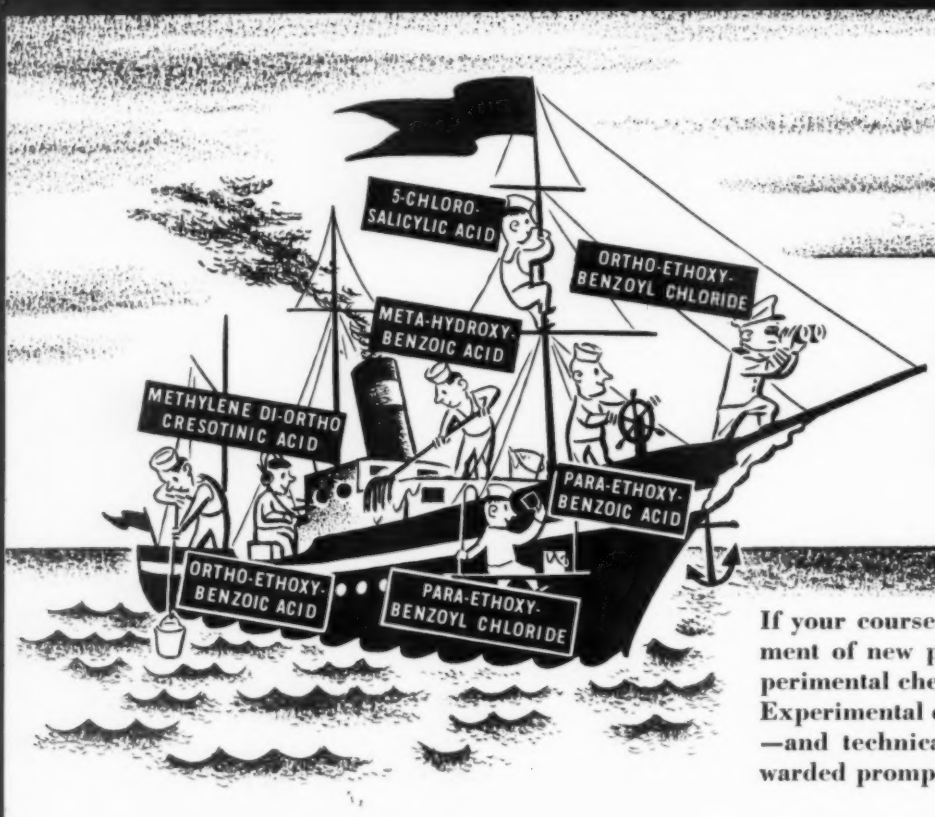
NYQ

REG. U.S. PAT. OFF.

The New York Quinine & Chemical Works, Inc.

General Offices

0 Church Street, New York 7, N. Y. • 729 West Division Street, Chicago 10, Ill. • 6399 Wilshire Boulevard, Los Angeles 48, Calif.



SET TO EXPLORE!

If your course is set toward the development of new products, these Heyden experimental chemicals should be explored. Experimental quantities are available now—and technical information will be forwarded promptly upon request.

5-CHLOROSALICYLIC ACID

Highly effective as a "carrier" to deepen and level shades in dyeing Dacron and Nylon. Derivatives useful as pharmaceuticals, insecticides, and fine chemicals.

Availability: Experimental quantities
Properties: Appearance . . . . . White needles
Melting Point . . . . . 173°—174°C.
Solubility . . Very slightly soluble in cold water; soluble in hot water.

META-HYDROXYBENZOIC ACID

Useful as an intermediate in the preparation of fine chemicals. Undergoes reactions typical of phenols and aromatic acids.

Availability: Experimental quantities
Properties: Appearance . . . . . White powder
Melting Point . . . . . 202°C.
Solubility . Very slightly soluble in cold water; soluble in hot water and alcohol.

METHYLENE DI-ORTHOCRESOTINIC ACID

A dibasic acid useful in the production of resins for surface coatings and printing inks. Intermediate for dyes and fine chemicals.

Availability: Experimental quantities
Properties: Appearance . . . . . White crystals
Melting Point . . . . . 276°—277°C.
Solubility . Slightly soluble in alcohol and acetic acid

ORTHO-ETHOXYBENZOIC ACID

A liquid aromatic acid. Suggested as an intermediate for dyes and fine chemicals.

Availability: Experimental quantities
Properties: Appearance . . . . . Colorless oil
Melting Point . . . . . 19°—22°C.
Solubility . Slightly soluble in cold water; Soluble in hot water.

ORTHO-ETHOXYBENZOYL CHLORIDE

Highly reactive intermediate for preparation of esters, amides, etc.

Availability: Experimental quantities
Properties: Appearance . . . . . Colorless liquid
Boiling Point . . . . . 124°C. (5-6 mm.)

PARA-ETHOXYBENZOIC ACID

Intermediate for dyes, fluorescent whitening agents, pharmaceuticals, and fine chemicals.

Availability: Experimental quantities
Properties: Appearance . . . . . White needles
Melting Point . . . . . 198.5°C.
Solubility . Very slightly soluble in hot water.

PARA-ETHOXYBENZOYL CHLORIDE

Highly reactive intermediate for the preparation of dyes, fluorescent whitening agents, pharmaceuticals, and fine chemicals.

Availability: Experimental quantities
Properties: Appearance . . . . . Colorless liquid
Boiling Point . . . 112°—113°C. (6 mm.)

FINE HEYDEN CHEMICALS

HEYDEN CHEMICAL CORPORATION
342 MADISON AVENUE, NEW YORK 17, N. Y.
CHICAGO • PHILADELPHIA • SAN FRANCISCO • DETROIT • PROVIDENCE

Serving Industry through Finer Chemicals

Benzaldehyde • Benzoates • Benzyl Chloride • Bromides Chlorinated Aromatics • Creosotes • Formaldehyde • Formic Acid Glycerophosphates • Guaiacols • Hexamethylenetetramine Medicinal Colloids • Methylene Disalicylic Acid • Paraformaldehyde Parahydroxybenzoates • Penicillin • Pentaerythritols • Propyl Gallate Resorcinol • Salicylates • Salicylic Acid • Streptomycin

News . . .

Boyer Named SKF President

Francis Boyer, executive vice-president, has been promoted to the presidency of Smith, Kline & French Laboratories, and O. J. May, vice-president in charge of operations, has become executive vice-president. C. Mahlon Kline, who has been president since 1921, will continue in the active management of the company as chairman of the board.

Mr. Kline, who was awarded the Procter Medal of the Philadelphia Drug Exchange last winter "for distinguished

FRANCIS BOYER

services in the pharmaceutical arts and sciences as a pioneer in the furthering of drug research," entered the pharmaceutical business in 1901 as an analytical chemist for SKF. In 1910, he became vice-president of what was then-called Smith, Kline & French Company, and president in 1920. When the company was separated into two firms in 1929, Mr. Kline became president of the manufacturing firm, Smith, Kline & French Laboratories, and Chairman of the Board of the wholesale firm, Smith, Kline & French, Inc. In 1945, he was named Chairman of the Board of SKF Laboratories, and he is Chairman of the Board of the foreign subsidiaries, Smith, Kline & French Inter-American Corp., and Smith, Kline & French International Co., as well as the Avoset Company.

McLean with Cutter Labs.

Dr. Edwin B. McLean has joined Cutter Laboratories as director of clinical investigation.

Sharp & Dohme Grants

Sharp & Dohme, Inc. has awarded two grants for medical research to scientists at Western Reserve University and the University of Texas, according to Dr. L. Earle Arnow, director of the company's research division. The first is a three-year grant amounting to $6,000 for fundamental research in the virus field, awarded to Dr. L. O. Krampitz, director of microbiology, Western Reserve. He will supervise a group of research workers whose studies will be concerned with metabolic changes in host cells following infection with viruses.

The second grant, also of $6,000, was awarded for basic research to Dr. E. Snell of the University of Texas, who will use the grant on a problem of bacterial metabolism.

C. MAHLON KLINE

Norwich Forms 2 New Subsidiaries

Norwich Pharmacal Co. has formed two wholly owned subsidiaries, Norwich Inter-America, Inc., and Eaton Inter-America, Inc., according to Melvin C. Eaton, president. They were set up in order to serve Western Hemisphere countries more adequately, and to develop, principally in Latin America, the proprietary drug business of the parent company and the ethical drug business of Eaton Laboratories, Inc., another subsidiary.

Mr. Eaton has been elected president of both subsidiaries, while Herbert G. Wahle, director of exports, was elected vice-president, and John K. Hill, vice-president of the parent company, was named secretary and treasurer.

Kendall Leaves Christian Dior

David M. Kendall has resigned as executive vice-president of Christian Dior Perfumes Corp., and will announce his plans later.

McCabe Becomes Merck Secretary

James E. McCabe has been elected secretary of Merck & Co., Inc., according to James J. Kerrigan, president. Assistant secretary since December, 1949, he now assumes part of the responsibilities which have been carried by John T. Connor as vice-president, secretary, and counsel. Mr. Connor's title becomes vice-president and counsel.

Parke, Davis to Move to N. J.

Parke, Davis & Co. plans to move its New York City operations to the Bergen County Industrial Terminal in Teterboro-South Hackensack. The land and building will total nearly three-quarters of a million dollars, with 4 acres facing Route 6, and a 50,000 square-foot fireproof structure of steel, concrete, masonry and brick. The new building will handle business throughout this area and part of New England.

O. J. MAY

Stevenson Returns to Givaudan

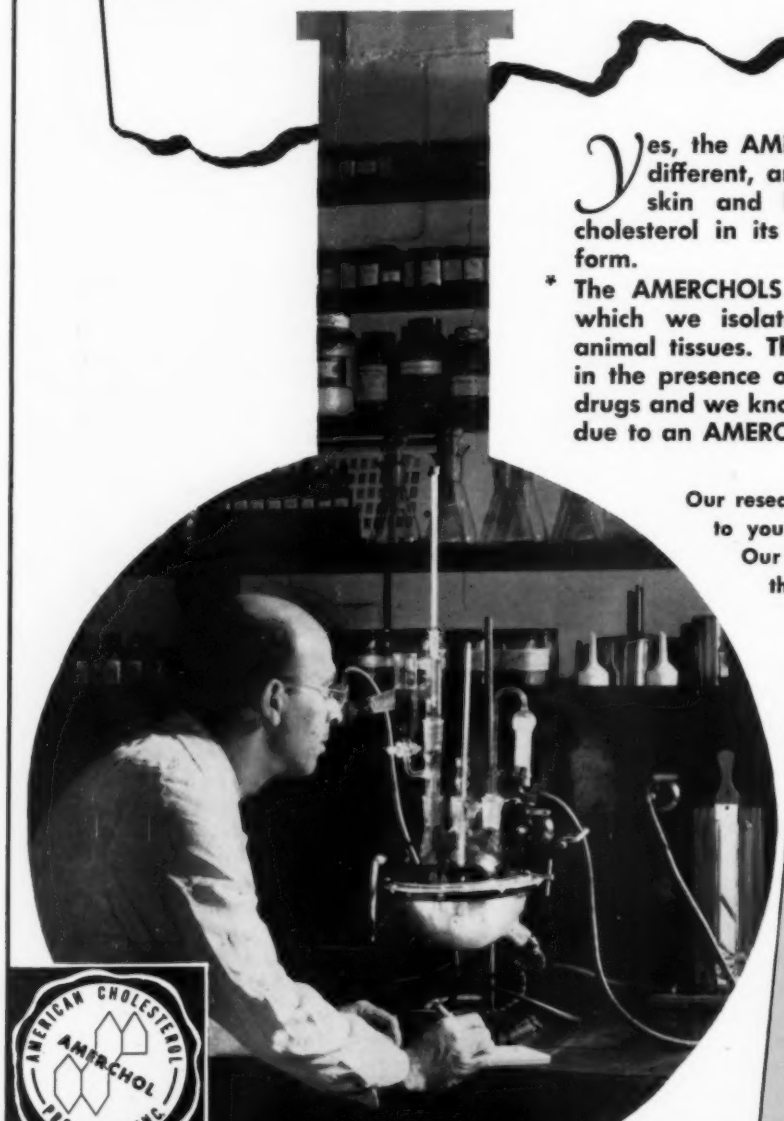
Ralph M. Stevenson, midwestern sales manager of Givaudan-Delawanna, Inc., has completed his assignment in Washington, where he served as section chief of essential oils, flavor materials and perfume materials for the rubber, chemical and drug division in the Office of Price Stabilization. He is now devoting full time to his regular business activities.

Cutter Adds New Plant

Cutter Laboratories has completed a new plant for the manufacture of hospital solutions at Chattanooga, Tenn. The new laboratories are ready for full-scale production to serve the eastern and growing southeastern markets. Covering 53,000 square feet of floor space, the plant has an elaborate, specially designed system which provides accurate testing throughout each step of production to assure complete sterility of the finished solutions.

EMULSIFIERS, EMOLLIENTS AND PENETRANTS

the AMERCHOLS* are naturally different!



Yes, the AMERCHOLS ARE NATURALLY different, and naturally better for the skin and hair too. They represent cholesterol in its most active and efficient form.

* The AMERCHOLS are non-ionic surfactants which we isolate in purified form from animal tissues. The AMERCHOLS are stable in the presence of acids, alkalies and most drugs and we know of no case of an allergy due to an AMERCHOL.

Our research laboratories are available to you for advice and information. Our booklet will help you formulate the AMERCHOLS in O/W and W/O emulsions.

LABORATORY DATA

FOR PHARMACEUTICALS AND COSMETICS

AMERCHOL
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MILLTOWN, NEW JERSEY

AMERICAN CHOLESTEROL PRODUCTS, INC. AMERCHOL

AMERICAN CHOLESTEROL PRODUCTS
• INCORPORATED •
MILLTOWN — NEW JERSEY

Edward Mallinckrodt, Jr., board chairman, Mallinckrodt Chemical Wks., speaking before 1700 Company employees on celebration of his 50th anniversary in chemical field

Edward Mallinckrodt's 50th Year

Edward Mallinckrodt, Jr., chairman of the board, was honored by 1700 employees in a recent ceremony at the St. Louis plant of the Mallinckrodt Chemical Works on the occasion of his 50th anniversary in business. He joined the company after completing graduate studies for the A.M. degree at Harvard University in 1901 and has been active in the management of the company's technical as well as business affairs since that time. He succeeded his father, Edward, Sr., as chairman in 1928, becoming the second board chairman in the company's 84-year history.

At the ceremony, employees unveiled a portrait of Mr. Mallinckrodt which had been painted by Richard S. Meryman of Dublin, N. H.

In his acknowledgement, Mr. Mallinckrodt paid tribute to the able leadership of the founders and early managers of the business, pointing out that their policies of fair dealing with customers and quality of product had endured and were being continued.

Rosner Addresses Cos. Chemists

Dr. Lawrence Rosner, technical director of the Laboratory of Vitamin Technology, was the principal speaker at the January meeting of the Chicago chapter of the Society of Cosmetic Chemists held in Henrici's Restaurant on January 8. His topic was "Irritation and Toxicity Testing of Cosmetics," and he emphasized laboratory techniques in the testing of cosmetics for irritation, toxicity and allergenic properties.

Maltbie Appointments

Dr. Su Ming Wang has joined the research staff of Maltbie Laboratories, Inc. as senior chemist in pharmaceutical research and development, and Mario J. Cerro has become bacteriologist in charge of ampul production.

Dr. Scholz Joins Armour Labs.

Dr. Dale Scholz has joined the medical consultant service of the Armour Laboratories as regional medical director of the New York area, according to T. E. Hicks, vice-president.

DCAT Members Elected by Board

Fred J. Stock, vice-president of Chas. Pfizer & Co., Inc., was elected vice-president of the New York Board of Trade, and Robert B. Magnus, vice-president of Magnus, Mabee & Reynard, Inc., treasurer, of the New York Board of Trade in December. Members from the Drug, Chemical and Allied Trades Section who were elected directors of the Board of Trade were George S. McMillan, vice-president, Bristol-Myers Co., J. P. Remensnyder, president, Heyden Chemical Corp., as well as the following who were re-elected: Stanley I. Clark, Sterling Drug Inc.; John A. Ewald, Avon Products, Inc.; C. M. Macauley, Pro-phy-lac-tic Brush Co.; Fred G. Singer, E. I. duPont de Nemours & Co., Inc.; and Mr. Magnus.

ROBERT B. MAGNUS

Packaging Institute Meeting

The Packaging Machinery Manufacturers Institute will hold its semi-annual meeting on March 30 and 31 at the Hotel Dennis, Atlantic City, according to G. Radcliffe Stevens, president. This hotel will be headquarters during the Packaging Exposition which opens at the Atlantic City Auditorium on April 1.

Dr. Naves Addresses Convention

Dr. Yves-Rene Naves, research scientist of L. Givaudan & Cie., Geneva, and recipient of the Fritzsche Award for 1952, addressed the Comitato Italiano di Estetica et Cosmetologia in October in Milan, at the second national convention. He spoke on the synthetic reproduction of natural odoriferous materials.

Revlon's 20th Year]

Revlon Products Corp. celebrated its twentieth anniversary last month when representatives gathered in the Savoy Plaza Hotel on December 6. The company grew from a $300 investment in nail enamel to a multi-million-dollar business on five continents. It was started in 1932 by the three Revson brothers and Charles Lachman, who are still partners and actively running the company, with Charles Revson as president; Joseph Revson, treasurer and general manager; Martin Revson, vice-president in charge of sales; and Mr. Lachman, vice-president in charge of research.

Revlon Export Corp., organized in 1938, began doing business with foreign distributors, a phase of the company's operations now active in 78 countries. This year the company is spending over $2 million in advertising and promotion alone. It has a number of foreign plants and subsidiaries; the New York offices occupy several floors at 745 Fifth Ave.; it has manufacturing plants in New York, New Jersey, and a number of foreign countries; and it is expanding its line with several new products in its 1952 anniversary year.

Hereld Elected by Chemo Puro

Curtis L. Hereld, Jr. has been elected comptroller of Chemo Puro Manufacturing Corp., and will be responsible for credit and purchasing policies of the company as well as the supervision of the domestic sales.

Rogers Named Pres. Nat'l Aniline

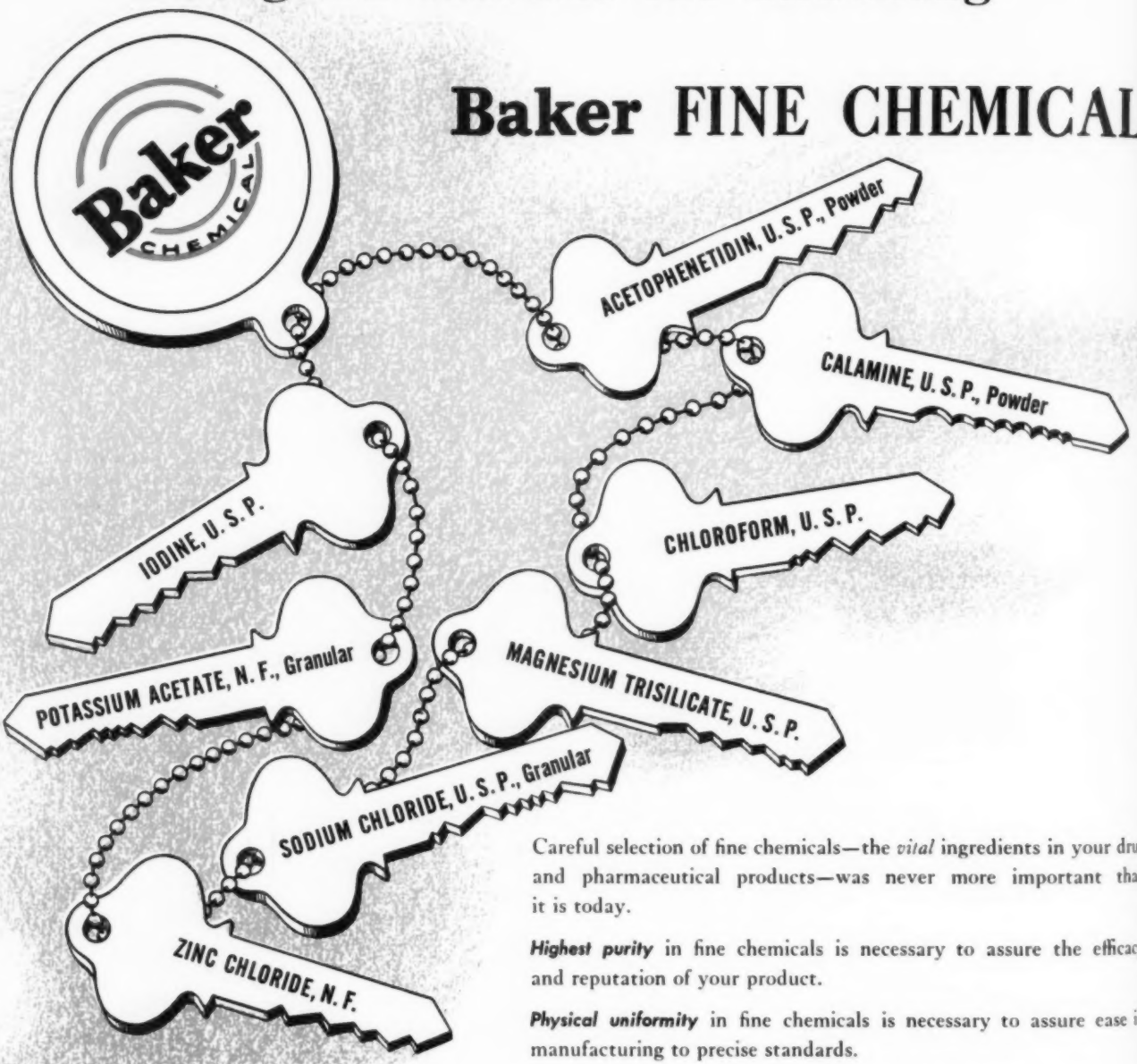
D. G. Rogers has been appointed president of National Aniline division of Allied Chemical & Dye Corp., succeeding E. M. Maxwell who has been ill for some time. Mr. Rogers had been executive vice-president since October, 1950.

D. G. ROGERS

Physical uniformity and controlled purity

—good reasons for choosing

Baker FINE CHEMICALS



A few of the many Fine Chemicals offered by Baker. Write for Bulk Chemical Price List.

Careful selection of fine chemicals—the *vital* ingredients in your drug and pharmaceutical products—was never more important than it is today.

Highest purity in fine chemicals is necessary to assure the efficacy and reputation of your product.

Physical uniformity in fine chemicals is necessary to assure ease in manufacturing to precise standards.

On this page are listed several Baker Fine Chemicals—widely used in the compounding of quality drug products. In the Baker line there undoubtedly is the fine chemical to do your specific job.

Whichever one you select you are assured of uniform physical standards and measured purity. Investigate Baker.

Address: J. T. Baker Chemical Co., *Executive Offices and Plant*, Phillipsburg, New Jersey.

Baker Chemicals

REAGENT • FINE • INDUSTRIAL

New Officers for Cosmetic Chemists

Maison G. deNavarre addressed the November meeting of the Chicago Chapter of the Society of Cosmetic Chemists on the subject of Substitute Materials in Cosmetics. During the same meeting, the following officers for the Chicago chapter were installed for 1952: Douglas Atlas, Marcelle Cosmetics, Inc., as chairman-elect; William E. Lieb, Allen B. Wrisley Co., treasurer; Dr. Katherine Graham, Sears Roebuck & Co., secretary; and George Kolar, Kolar Labs. Inc., chairman.

Named Directors of J. T. Baker

Ralph S. Lamie, plant superintendent, and Anthony J. Ratichek, manager, planning and purchasing department, were elected as directors at a stockholders' meeting in December, according to Marion W. Smith, president.

RALPH S. LAMIE

Squibb's New Branch Office

E. R. Squibb & Sons formally opened their New England headquarters at Cambridge, Mass. in late October, when Cambridge Mayor Edward A. Crane, assisted by local civic leaders and Squibb executives officiated at brief dedicatory ceremonies. Officials of Squibb who were present to greet the guests included C. M. Van Kirk, executive vice-president; J. J. Toohy, vice-president and general sales manager; R. J. Dahl, vice-president, research and development; W. L. Arscott field sales manager; L. M. Palmer, assistant treasurer; G. S. Squibb, secretary; A. J. Heberger, manager, price and quotation; H. J. Towers, manager, retail distribution; J. A. Dillon, manager, distribution; H. W. Baldock, manager, detailing service; D. R. Zimmetman, director, sales training; J. E. Aurelius, associate director, product planning; and T. D. Gerlough, associate director, New Brunswick research and development laboratories.

New officers of Chicago chapter, Society of Cosmetic Chemists. Left to Right: Douglas Atlas, Marcelle Cosmetics, Inc., chairman elect; Wm. E. Lieb, Allen B. Wrisley Co., treas.; Dr. Katherine Graham, Sears Roebuck & Co., sec. and Chairman George Kolar, Kolar Labs.

Patch Joins Armour Labs.

Edgar L. Patch, formerly with E. L. Patch Co., has joined the Armour Laboratories in an administrative capacity, according to Thomas E. Hicks, vice-president in charge of the Laboratories.

ANTHONY J. RATICHEK

New S & D Kansas City Ranch

The new Kansas City branch warehouse of Sharp & Dohme, Inc., opened for business December 17, at Sunshine and Chrysler Roads, according to E. W. Metzger, director of Domestic branches. It is almost twice as large as the old branch at 908 Central St. which has discontinued operations. The area now serviced by the branch is one of the largest in the company's domestic distribution setup and includes 17 sales districts.

C. A. Hashagen is branch manager, and E. F. Schwab, district sales manager.

Absorption Base Booklet

Innis Speiden & Co., Inc. has released an 8-page booklet, "Absorption Bases by Isco," which describes thirteen cream compositions that can be prepared from Isco bases, as well as methods of preparation. Copies of the booklet are available on request.

Bymart Adds 15 Representatives

Fifteen district representatives have been added to the national field staff of Bymart-Tintair, Inc., and will join in the intensive promotion planned for Lightening Change, company's newest product, according to Phil Kalech, senior vice-president and sales director. A total of 50 additional field representatives joined the company during December.

The representatives and territories are George Johnston, Texas; Frank S. Passaro, Connecticut; Edward R. Parlier; Mark J. Snyder, New York; Cort Larned, Jr., Michigan; Herman Nichols, Louisville and parts of Indiana; Joseph F. Smith, Indiana; Aaron H. Schneider, Chicago; William J. Wysocki, Chicago; Ernest Roth, Philadelphia; Louis Bogin, Philadelphia; Morton B. Freeman, Los Angeles; S. Nicholas Vassil, Massachusetts; and Sidney M. Rothman, Pennsylvania.

Schenley Plant in Denmark

Schenley Laboratories, Inc. will help construct a streptomycin plant in Copenhagen, Denmark, for Novo Terapeutisk Laboratorium A/S, according to an agreement announced by Aaron F. Levy, company executive vice-president.

The new agreement will give Schenley royalties on Novo's streptomycin production as well as an option to introduce in this country Novo products or production techniques. It also provides that Schenley Laboratories will furnish the technical know-how and necessary assistance for the Danish firm to refine its present penicillin fermentation process.

Becomes Asst. Advg. Manager

Helen Martin, formerly a member of the clinical research department of Lakeside Laboratories, Inc., has been appointed assistant advertising manager, according to Evan C. Helfaer, president.

William McDevitt Retires

William A. McDevitt, Senior Customs Appraiser of the Perfumery and Toiletries Division of the U. S. Customs, is retiring after forty years in the service. Over 250 of Mr. McDevitt's friends in the cosmetic and toilet goods industry, who have been doing business with Mr. McDevitt for many years, honored him at a dinner held December 26, at the New York Athletic Club. At the dinner his friends expressed to Mr. McDevitt their great appreciation for his helpful guidance in their importation problems over many years.

Promoted by Simplex

Wm. A. Wolff and M. Wm. Smith have been promoted to works manager and Northern California sales representative, respectively, by Simplex Packaging Machinery, Inc., subsidiary of Machinery and Chemical Corp.

New B & A Catalogue

Baker & Adamson Products, General Chemical division, Allied Chemical & Dye Corp., is offering a new 264-page catalogue of laboratory reagents and fine chemicals. It covers more than 1,000 high-purity chemicals, including such facts as grades, strengths, and maximum limits of impurities on all reagents.

Copies are available to qualified users and buyers on request.

Moore Named Richford V.P.

Eugene J. Moore has been elected vice-president of Richford Corp., according to Paul E. Roehrich, president.

Ortho Pharm. Appointments

E. Augustus Swart has joined the Ortho Research Foundation as senior associate research biochemist, while Alfred B. Kupferberg has been promoted to director of the division of microbiology.

Sol Gershon, left, director of research, Pepsodent division, welcomed as new president of Society of Cosmetic Chemists by retiring president Everett McDonough. He was elected during Society's 7th annual convention in New York and took office January 1.

Establish Elrick, Lavidge & Co.

Elrick, Lavidge and Co., a new organization, with offices at 176 W. Adams St., Chicago, has been established to help drug and pharmaceutical concerns find profitable markets, products, and selling opportunities through marketing research.

Principals in the firm are Robert F. Elrick, formerly director of marketing research for Pepsodent and Robert J. Lavidge, previously, assistant director of marketing for the American Meat Institute.

Salsbury's Annual Sales Meeting

Dr. Salsbury's Laboratories held an annual sales meeting from December 3 through 6 at Mason City, Iowa, which was attended by more than 100 field and home-office staff members. H. G. Bos, sales and advertising director, who was honored for 25 years' service to Salsbury's, was in charge of the meeting.

Sagarin Resigns from Givaudan

Edward Sagarin, author of "The Science and Art of Perfumery," has resigned as advertising manager and editor of publications of Givaudan-Delawanna, Inc., and associate companies. Miss R. F. Bacon has assumed the responsibilities of acting advertising manager. Mr. Sagarin is translator of "Natural Perfume Materials," by Naves and Mazuyer, and is author of numerous papers on the science of olfaction and the literature of perfumery, among other subjects.

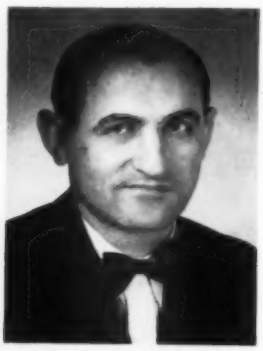
A member of a committee to investigate odor description in the chemical literature, set up by the Society of Cosmetic Chemists, Mr. Sagarin, with Dr. Paul Lauffer, committee chairman, was co-author of a paper on that subject delivered to the American Chemical Society.

At the present time Mr. Sagarin is working on a study of the inter-relationship between the changing social forces in American history and the growth of the cosmetic industry. He is also undertaking consulting work in all fields relating to odor, including the efficiency of deodorants, the degree of similarity of odor simulations, the effect of diminished and increased perfume concentrations on the acceptance of a product, and others.

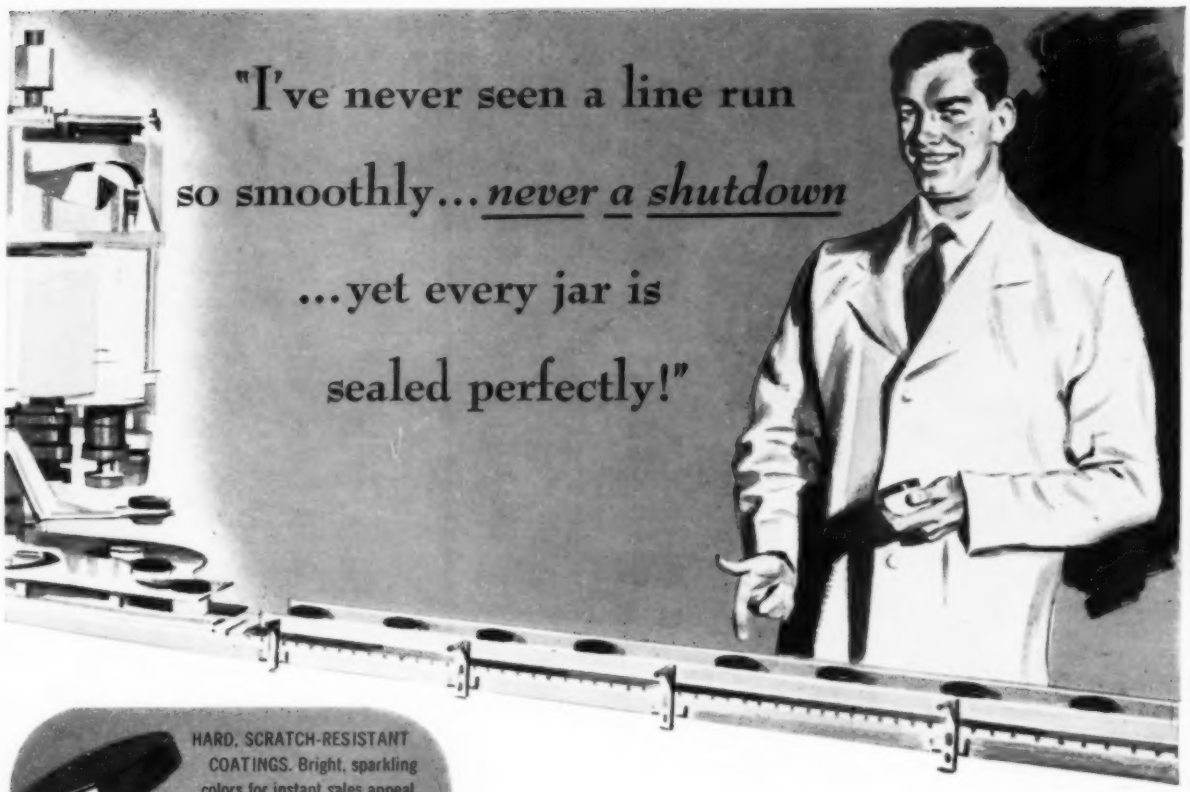
With Ansbacher-Siegle

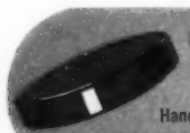
John F. Birmingham and Michael Dunn have been appointed to the technical staff of Ansbacher-Siegle Corp., according to Harris Holtzman, technical director.

E. AUGUSTUS SWART

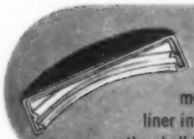


ALFRED B. KUPFERBERG





HARD, SCRATCH-RESISTANT COATINGS. Bright, sparkling colors for instant sales appeal. Handsomely lacquered or lithographed in colors to suit your requirements.



SIMPLE, EFFICIENT CONSTRUCTION. Liner and thread are inserted into a sheet metal shell. The thread holds the liner in position, and the lower edge of the shell locks the thread in place.

PATENTED THREAD DESIGN. Spins on freely. Forms a perfect-fitting seal, but won't "freeze" to container. Only MeritSEAL has this exclusive design.

RANGE OF SIZE, CHOICE OF COLORS AND LINER MATERIALS. 12 standard sizes ranging from 48 mm to 100 mm. Special sizes can be ordered. Choice of various liners to suit your needs.

Yes, production men know that MeritSEAL can be depended upon for economical, trouble-free performance because its unique design represents an entirely new concept of cap construction. It spins easily onto jars on high-speed production lines. And MeritSEAL assures safe, efficient sealing that really protects the product.

In addition, cosmetic manufacturers know how it compliments and enhances their product. Behind-the-counter saleswomen praise the eye-appealing displays—and the fast sales—they can make with products using MeritSEAL. And, of course, the women who buy it love it—for its smooth, trim lines . . . smart, glistening colors . . . and its distinctive look and feel of luxury.

See for yourself how really attractive and efficient MeritSEAL is. We'll be glad to send full information and samples. Simply state your color preference and sizes needed for your product.

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Division of Crown Cork and Seal Co.
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Reckon We'll be in Business in 2052

Here we are, starting a new year, the way we've been doing for way over a hundred years, and will be doing for another hundred. Yep, we're part of a big outfit now, but that just makes our own operation that much bigger. We're in a better spot than ever to supply you with the best quality in chemicals like these:

Caustic Potash	**Potassium Chloride**	**Metasilicates**	**Candelilla Wax**
Carbonate of Potash	**Borax**	**Ortho Silicates**	**Gum Arabic**
Caustic Soda	**Boric Acid**	**Formic Acid**	**Gum Tragacanth**

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E. S. BROWNING CO., INC., San Francisco • Los Angeles
Subsidiary of Innis, Speiden & Co., Inc.

Finzi Appointed by Schering

Sergio Finzi has been appointed area sales manager of the International division of Schering Corp. for Latin American countries, according to Dr. John N. McDonnell, vice-president.

SERGIO FINZI

Fritzsche Sales Conference

The sales staff, executives, and departmental heads of Fritzsche Brothers, Inc., held their annual week-long sales conference in early December. President F. H. Leonhardt welcomed the representatives and management to the conference on the first day, following which, John H. Montgomery, H. P. Wesemann, Joseph A. Huisking, and Fred Leonhardt, Jr., vice-presidents, John Cassullo, treasurer, and others, conducted general discussions. On succeeding days of the meeting, there was a forum on flavors, led by Robert Krone, Ray Thompson, and Dr. E. H. Hamann, while the last day was devoted to the discussion of perfumes and related problems by Kenneth Tracy, Ernest Lawson, and George Ammersbach.

The conference was officially ended on Saturday, December 8 with a dinner-dance for all employees in the grand ballroom of the Hotel New Yorker.

Talks on Drug Research in Europe

Dr. Charles E. Dutchess, vice-president and medical director of Schenley Laboratories, Inc., addressed the Ethical-pharmaceutical Export Executives Club at their meeting on December 7, stating that "Western European nations have made excellent progress in re-establishing medical and pharmaceutical research programs that were casualties of World War II." Having recently returned from an extensive tour of Western Europe, he reported that Western Germany had resumed a prominent role in research, and that laboratories in France, Switzerland and Sweden were also doing an outstanding job in both antibiotics and other therapeutic agents.

Stokes & Smith Sales Meeting

Stokes and Smith Co., a subsidiary of Food Machinery and Chemical Corp., held a two-day sales conference at its plant in Philadelphia on December 10 and 11. About 55 representatives from all sections of the country attended. The meetings were headed by Carl E. Schaeffer, general sales manager, and William R. Huguenin, plant manager. Among the principal speakers were Charles H. Nitsch, chief engineer; S. T. Brinton, packaging sales; S. E. Child, paper box sales; J. R. Sonneborn, in charge of service and personnel; and Oliver Martin, chief accountant.

Clarkson Equipped to Make Tablets

Ronald Clarkson, tablet consultant of Philadelphia, is equipped to make small or medium batches of tablets for those who want tablet runs of these sizes. Companies desiring to obtain relatively small lots of a particular type of tablet for clinical testing or for some other purpose, are in a position to avail themselves of this service.

Solmssen Joins Schering Internat.

Harold K. Solmssen has been appointed financial anlyst to the international division of Schering Corp., according to Dr. John N. McDonnell, vice-president.

PATRICK H. GORMAN

Gorman Joins Vick Chemical

Patrick H. Gorman, advertising manager in Philip Morris and Co., Ltd., Inc., has been named assistant to E. L. Mabry, president, Vick Chemical Co.

New Unit Process Plant

J. T. Baker Chemical Co. began operation last month of a new unit process plant, as part of a $3 million expansion and modernization program, according to Marion W. Smith, president. The new plant will boost production of many inorganic chemicals used in atomic energy, steel, rubber, munitions, electronics, textiles, and other industries.

The expansion and modernization program was started early in 1951 to meet the increased demands for large volume production of industrial and pharmaceutical chemicals having high purity standards.

Luncheon meeting of Fritzsche Brothers' executives, sales staff, and New York dept. heads during sales meeting in New Yorker Hotel.

Empress closures and smart-looking label combinations transform stock-mold bottles A-7314 and A-8059 into highly individualized packages for hand cream and nail polish.

MAKE-UP makes the difference!

Regardless of conservation orders, there's no freeze on individuality and ingenuity in keeping your package fresh and appealing.

A different closure, an unusual use of color, a striking label—presto! A stock-mold Duraglas bottle becomes a package of distinction that will stand out anywhere.

Owens-Illinois has more than 1400 different sizes and styles of Duraglas stock-mold bottles to choose from. Our package design specialists at the Duraglas Center can help you create a striking bottle-label-closure combination that's just right for your product.

Remember, no matter what the market conditions may be, it doesn't pay to let your package get out of the *habit* of selling.

Duraglas bottles are protectors of quality

TRADE MARK REG. U.S. PAT. OFF.

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

Bezard Named de Laire Sales Mgr.

Louis Bezard has been appointed sales manager for the de Laire division of Dodge & Olcott, Inc., according to Francois de Laire of Fabriques de Laire, Paris. He will work closely with Henri Robert, director of the division, and Joseph F. Rudolph, president of Dodge & Olcott.

Heyden Sells Detroit Subsidiaries

Heyden Chemical Corp, has sold its Detroit subsidiaries, the Jamieson Pharmacal Co. and the Nyal Co. to a group of private investors, according to John P. Remensnyder, president. The company has also sold all the stock of its wholly owned Canadian subsidiary, C. E. Jamieson & Co. (Dominion) Ltd. to the same group of private investors.

Jamieson has been engaged in the manufacture and distribution of drug products with production facilities centered in Detroit, and the Nyal Co. has handled the distribution of drug sundries, with headquarters in Detroit.

The sale of the principal assets of the two Heyden Detroit subsidiaries is in line with the policy which the company has followed in recent years of concentrating activities in the fields in which the company is well established, Mr. Remensnyder stated.

Baker Leaves Squibb

W. B. Baker, director, pharmaceutical development, E. R. Squibb & Sons, resigned from this post on January 1.

Changes in Bristol Advg. Staff

Walter P. Lantz, formerly coordinator of the advertising department, has been named executive assistant to Robert B. Brown, president of Bristol-Myers products division; Lee H. Bristol, Jr., has joined the company as assistant advertising manager; and Richard K. Van Nostrand has been appointed advertising manager.

Louis Bezard, second from right, new sales manager for de Laire division, Dodge & Olcott, Inc., talking with, left to right, Henri Robert, director of division; Francois de Laire, of Fabriques de Laire, Paris; and Joseph F. Rudolph, president of Dodge & Olcott.

Hainsworth Joins Squibb

Bruce A. Hainsworth, former district chief engineer of the H. K. Ferguson Co., has joined E. R. Squibb & Sons as director of engineering, where he will head a newly created division of engineering, according to C. M. Van Kirk, executive vice-president. He will supervise the engineering and construction requirements of the Squibb parent company and all of its domestic and foreign subsidiaries.

CSC Promotions

Arthur W. Luedeke, formerly district manager of the Cleveland Office of Commercial Solvents Corp., has been appointed district manager of the New York sales office, with James McInnes, Jr. as assistant district manager, according to W. Ward Jackson, general manager of the industrial chemicals division.

Bernard F. Nachtman, previously in charge of the Kansas City office, has replaced Mr. Luedeke as district manager of the Cleveland office.

Thompson Heads Med. Directors

Dr. Kenneth W. Thompson, Organon, Inc., has been elected president of the Association of Medical Directors for the coming year, according to Dr. D. K. Kitchen, retiring president of the association, and vice-president and chief medical counsel of Bristol-Myers Co. Other officers elected were Dr. J. B. Rice, Winthrop Chemical Co., vice-president; and Dr. H. C. Fleming, Schering Corp., as secretary.

Mullick Named Walker V.P.

Louis F. Mullick was elected vice-president in charge of plant and production at a recent meeting of the board of directors of Walker Laboratories, Inc. He was largely responsible for the planning of the new Walker plant.

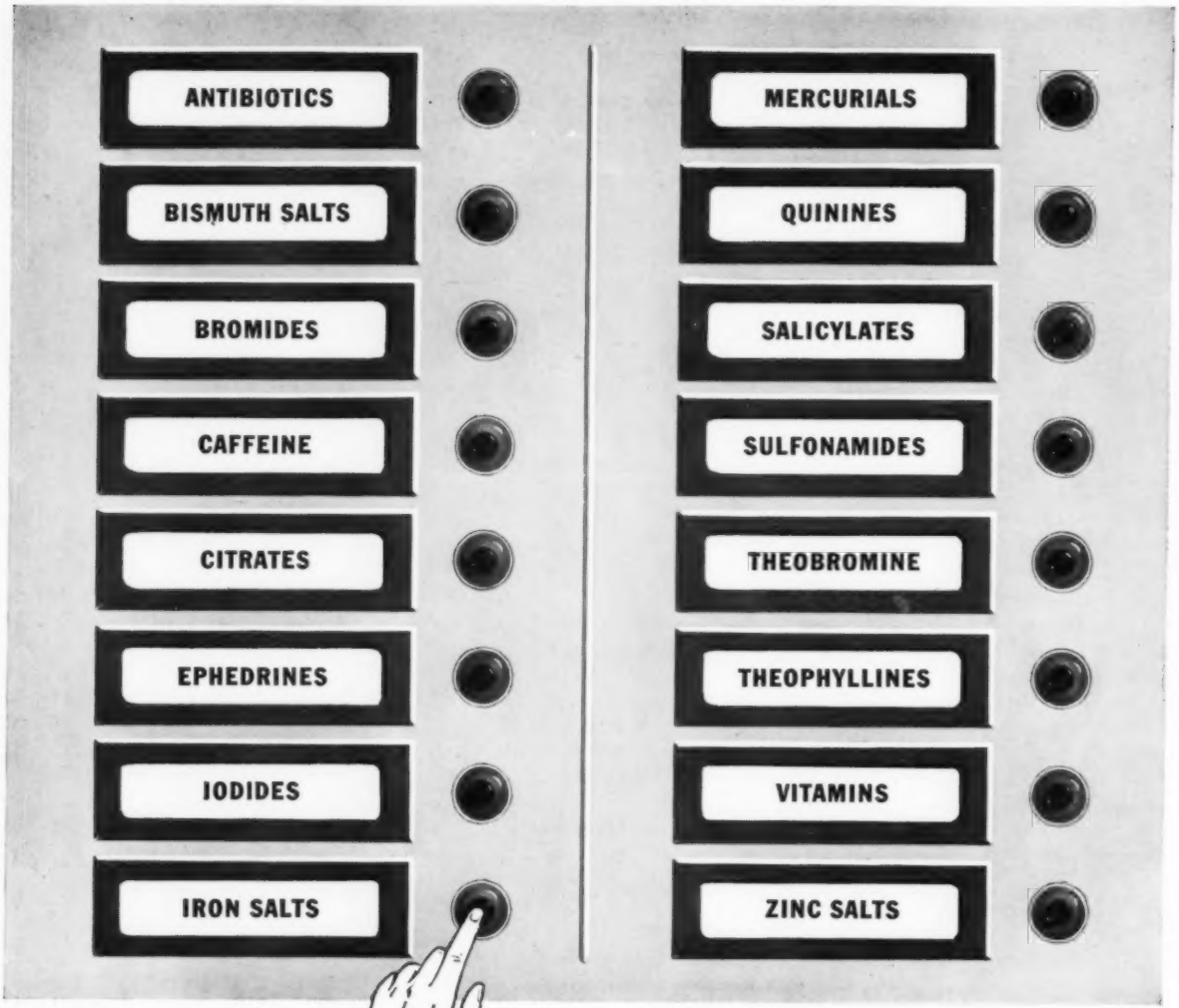
Evans Appointed by Lakeside

Howard Evans has been appointed associate director of clinical research, of Lakeside Laboratories, Inc., according to Dr. H. L. Daiell, vice-president and director of research. He had formerly been director of the professional service department.

WALTER P. LANTZ

LEE H. BRISTOL, JR.

R. K. VAN NOSTRAND



Why it pays to call on Merck

MERCK LEADERSHIP in the field of fine chemicals is built on the long-established confidence of Merck customers . . . on the trust of countless chemical users in the purity and uniformity of Merck products . . . on the know-how acquired through many years of pioneering experience in the manufacture of fine and medicinal chemicals.

IT PAYS TO CALL ON MERCK

MERCK & CO., INC.
Manufacturing Chemists
RAHWAY, NEW JERSEY

FINE CHEMICALS FOR THE PROFESSIONS AND INDUSTRY SINCE 1818

Ungerer Sales Convention

Ungerer & Co. held a sales convention from November 7 through 9, which opened with W. A. Bush, general sales manager, welcoming the various sales representatives on behalf of the company. On the first day K. G. Voorhees, president and treasurer, discussed the Present and Future Trends of Essential Oils and Aromatic Chemicals. The afternoon was devoted to a discussion on sales, service, packaging, and shipping, with W. H. Dunney, Jr., vice-president, taking charge.

The second day of the convention included a discussion by Mr. Dunney on the uses of various types of Perfume Specialties and Procurement of Raw Materials for Compounding, as well as a talk by Mr. Voorhees on the Future Production Anticipated at Ungerer's Factory in Totowa, N. J.

On the last day of the get-together, F. H. Ungerer, chairman of the board, greeted the representatives at the factory. During the morning Dr. Darrell Althausen, technical director of the company, lectured on Profiles in Aromatics and Flavors and later conducted a tour through the plant. He explained various manufacturing methods now being used for producing many basic perfume raw materials.

Other officials, technical personnel, and representatives who attended the convention included: I. H. Budd, 1st vice-president; H. B. Moore, 2nd vice-president; G. V. Branigan, head, chemical control laboratory; W. H. Dunney, Sr., perfumer; F. F. Dittrich, credit manager; F. M. Miller, Jr., assistant general sales manager-advertising manager; Jacques Honan, flavor chemist; Sven Andersen, flavor chemist; Ralph Baer, chemist pilot control; and Philip Berry, assistant purchasing agent; and the following representatives: H. J. Ahles, Ira Bennett, J. R. Martin, all of Chicago; J. L. Slais, St. Louis; W. E. Kell, Boston; E. C. Dohrmann, Philadelphia; N. E. Gallagher, C. T. Perez, and H. Budd, all of New York.

New York Quinine Moves

The executive offices and manufacturing operations of New York Quinine & Chemical Works have been moved from their Brooklyn location. The manufacturing operations have been transferred to a recently acquired plant site on Mount Olivet St., Newark, N. J., and the executive offices are now located in 50 Church St., New York. Telephone number is WHitehall 3-6262.

Matilda Schaefer, who completed 60 years of continuous service, on Dec. 31, in Package Finishing Dept. of Henry K. Wampole & Co.

Jacques Promoted by Squibb

W. B. Jacques has been promoted to assistant manager of the product sales control department of E. R. Squibb & Sons. He will assist A. W. Babcock, manager, in coordinating distribution of professional and consumer products to meet domestic sales requirements, according to J. J. Toohy, vice-president and general sales manager. He had formerly been a professional service representative in the company's New Jersey sales division.

Appointed by Sterling Drug

Robert H. Zitzmann has been appointed director of industrial relations of Sterling Drug Inc., according to Dr. J. Mark Hiebert, executive vice-president. He will administer the industrial relations program of the company's divisions and subsidiaries in the United States and Canada, conduct contract negotiations, wage administration and workmen's compensation, and act in a consultative capacity to personnel managers of the company's 14 plants in North America.

ROBERT H. ZITZMANN

Sandoz Visual Aid Booklets

S. M. Fossel, assistant manager of Sandoz Pharmaceuticals, and Harry Davis, professional service manager, have equipped their field staff with a new type of detailing aid, a booklet entitled "Atlas on Emotional Disorders." Discussions of functional disorders of the various organs and their relationship to emotional disturbance are graphically illustrated. Copies are available to the profession either through the Sandoz detailmen or on request from the company at 68 Charlton St., New York 14.

Volwiler Cited by A.I.C.

Dr. Ernest H. Volwiler, president and general manager of Abbott Laboratories, will be presented with an honorary membership to the American Institute of Chemists at a meeting of the Chicago chapter on February 1, according to Lawrence H. Flett, president of the A. I. C., and director of the new products division of the Allied Chemical and Dye Corp.

The citation accompanying the honorary membership commends Dr. Volwiler "for his great service as a leader in the chemical profession and for his contributions to better cooperation and understanding among chemists." He is the 48th person to be cited by the Institute in its 28-year history.

ADMA Members Visit Ciba

Over 100 members of the production and engineering section of the American Drug Manufacturer's Association visited Ciba Pharmaceutical Products, Inc., prior to their Fall meeting in New York. The inspection tour of the Ciba manufacturing facilities which occupy nearly twenty buildings was followed by a cocktail party at the Baltusrol Country Club.

Dudley Appointed by CSC

J. Fred Dudley has been appointed chief engineer of Commercial Solvents Corp., according to Maynard C. Wheeler, vice-president in charge of production and engineering. He replaces Homer Kieweg, who has been named manager of the central division of the production department.

Foster-Forbes Folder

Foster-Forbes Glass Co. has prepared a four-page folder illustrating their pharmaceutical bottles, vials, powder jars and ointment jars. A copy may be obtained by writing the company.

YOU'LL GET *Bouquets* EVERY DAY IF YOU USE *Penick* *Perfume Compounds*

ORCHIDS TO YOU! That's what your customers will be saying if you use Penick Perfume Specialties as the basis of new creations, or to improve your present creations.

Penick Perfume Bases are triumphs of the art of combining fragrances. Each is made from the finest natural oils and aromatics, and these convey the true floral scent to the finished product. Each is compounded with special fixatives to insure its shelf-life. All you have to do is add the desired alcohol, or add the compound as is, to dry mixtures.

For alluring perfumes, colognes, toilet waters, bath salts or soaps, investigate Penick Perfume Bases. . . . Test them for yourself . . . a request on your letterhead will bring you samples. Write Dept. DC-8.

We especially invite your investigation of—

EXOTIQUE No. 6270
BOUQUET D No. 7618
JASMINE-GARDENIA No. 7620
FLORAL BOUQUET No. 7653

S. B. PENICK & COMPANY

50 Church Street, New York 7, N. Y.
Telephone COrtlandt 7-1970

735 West Division Street, Chicago 10, Ill.
Telephone MOhawk 4-5651

DISTILLERS OF RARE AND QUALITY ESSENTIAL OILS—MANUFACTURERS OF AROMATIC CHEMICALS

Stoner Named Matchabelli Pres.

Owen Stoner, vice-president in charge of advertising and assistant general manager of Prince Matchabelli, Inc., since 1948, became president on January 1, according to E. L. Mabry, president of Vick Chemical Co., parent company.

OWEN STONER

Owens-Ill. Buys Sameric, Inc.

The business formerly owned by Sameric, Inc., of Riverdale, N. J., has been sold to Owens-Illinois Glass Co. of Toledo, Ohio, according to a joint announcement made by Owens-Illinois and the former owners of Sameric, Erich Gronemeyer and Samuel Cherba.

The corporate organization, known as Sameric, Inc., was dissolved on November 30, and will be operated under the direction of Mr. Gronemeyer and Mr. Cherba at the same location, as the Riverdale plant of the Closure and Plastics division of Owens-Illinois.

Lamson Appointed by Hudson Mfg.

Robert A. Lamson, Jr., has been appointed vice-president and general manager of the Hudson Manufacturing Co., Morton Grove, Ill., importers and manufacturers of vanilla products.

Liminger Resigns from Cenol

Leonard J. Liminger, president of Cenol Company, Chicago, resigned from the company December 31 last. He was one of the organizers of the company which was founded in 1911. While Mr. Liminger does not intend to retire from business, both he and Mrs. Liminger are giving first thought to an extended vacation.

Bymart Centralizing Offices

General offices of Bymart-Tintair, Inc. have been centralized at the firm's recently enlarged factory at 250 Hillside Ave., Newark. These offices include the principal sales, merchandising, advertising and promotion, and incoming order departments.

Strauss Appointed by Ciba

Dr. William T. Strauss, formerly medical director of Chilcott Laboratories, has been appointed medical advisor to the advertising division of Ciba Pharmaceutical Products, according to Vincent A. Burgher, vice-president.

DR. WILLIAM T. STRAUSS

Parenteral Drug Ass'n Elections

Paul de Haen, Ames Co., Inc., has been re-elected as 1952 president of the Parenteral Drug Association. Additional officers elected include: Joseph Ushkow, Endo Products, Inc., as Eastern vice-president; C. H. Taylor, Jr., Chicago Pharmacal Co., Mid-western vice-president; L. James Graham, Burroughs Wellcome & Co., as secretary; and Lionel Mellini, Sandoz Pharmaceuticals, treasurer.

The following men were elected as directors for varying terms: A. L. Konwiser, C. F. Kirk Co.; R. N. Price, Metropolitan Laboratories, Inc.; Mr. Ushkow; Dr. Paul A. Naef, Sandoz Pharmaceuticals; Max Gold, Gold Leaf Pharmacal Co., Inc.; Theodore J. Carski, Baltimore Biological Laboratory, Inc.; Dr. Hugo H. Schaefer, Brooklyn College of Pharmacy; Ray Goldberg, Vitarine Co., Inc.; and Edward Green, U. S. Vitamin Corp.

Dow Increases Staff

The Dow Chemical Co. is adding personnel to its New York and Chicago offices to handle the sale of styrofoam, according to Donald L. Gibb, manager of the plastics sales department. Henry B. Weisl and John T. Rayburn will handle the sale of the product in the New York and Chicago area, respectively.

Conner Named Fellow by Academy

Dr. Robert T. Conner, director of the research and development laboratories of Smith, Kline & French Laboratories, has been elected a Fellow of the New York Academy of Sciences.

Rabinowitz Buys Hagerty Bros.

J. Rabinowitz & Sons, Inc. has acquired the firm of Hagerty Bros. & Co., glass container distributors. Joseph F. Kelly will continue to operate Hagerty as a separate division of Rabinowitz, with offices at 2 Hanson Place, Brooklyn.

Norwich Completes Addition

The Norwich Pharmacal Co. has completed a 300-foot addition to its chemical plant on the outskirts of Norwich, N. Y. It will be used principally for processing and storage, leaving a major portion of the original installation free for the expansion of facilities for the manufacture of nitrofurazone crystals.

Elected Vice-Presidents of J & J

Dr. William H. Lycan and Richard V. Mulligan have been elected vice-presidents of Johnson & Johnson, according to George F. Smith, president.

Gustav A. Beauchamp

Gustav A. Beauchamp, active in the sales operations of Merck & Co., Inc., for many years, died at his home in Los Angeles on December 6 at the age of 70. He started with the sales department of the Powers-Weightman-Rosengarten Co. in Philadelphia in 1906 and joined Merck in 1918, having taken an active part in the development of sales at both companies over a period of forty-five years. After serving for several years as medicinal sales manager at Rahway, he established the Pacific Coast sales office at Los Angeles in 1936, continuing in charge of its operations until his retirement in 1947.

He is survived by his wife, Margery.

Frederick A. Cornelius

Frederick A. Cornelius, with S. B. Penick & Co. for twenty-eight years until his recent retirement, died December 5 at the age of 71. He entered the botanical field with Parke, Davis & Co., later transferring to P. E. Anderson & Co., where he was sales manager at the time the company was purchased by Penick.

Theodore P. Walker

Theodore P. Walker, chairman of the board of Commercial Solvents Corp., died November 28 of a heart attack. He was 65 years old. He was a director of Corn Products Co. and had been associated with Commercial Solvents since 1922. He became president of the company in 1938 and board chairman in 1947.

Management Forum

by Francis Chilson

INDUSTRIAL CONSULTANT

Traffic

Time was in this industry when the traffic manager was an isolated clerk whose function was to check freight bills and get pullman tickets for Mr. Bossman whenever he went out of town. Nobody knew anything about traffic and nobody gave a damn about it. Shipping expenses amounted only to two or three percent of net sales—not enough to worry about; let the traffic clerk haggle with the carriers about classifications, rebates, stop-rates, exception rates, combination rates, bottling in transit rates and God knew what else besides. Nobody understood such jargon and when the traffic manager tried to explain classifications or anything else about traffic to the Boss, Mr. Bossman promptly fell off the sled at the first turn and told the traffic manager he didn't want to be bothered about details.

Recently a good friend of mine, one of the best traffic managers in the business, went to his Bossman to try to impress him with the fact that rail and trucking rates have increased seventy percent since 1946 and that something should be done about it. Mr. Bossman fixed him with a cold and fishy eye and said, "Well, go ahead and do something about it. That's what you were hired for." Mr. Bossman was completely ignorant of the fact apparently that rail, truck, express and postal rates are all set by one governmental agency or another and that all rates once established have the force of law. Mr. Bossman also ignored the fact that my friend, the traffic manager, has no authority in his organization whatsoever except in his own department over a few clerks. No traffic manager has any authority in his organization. He can make suggestions to the heads of production and sales and as often as not is told to mind his own damn business. Which was just what he was trying to do.

I know of a case where a special deal was contrived by the sales department comprising a tube of toothpaste and a heavy glass ash tray. Of course nobody consulted the traffic department beforehand—salesmanagers are notably touchy about having pet projects criticized for any reason whatever—and much too late, it was discovered that the cheap glass ash tray, which was five times the weight of the tube of toothpaste, took the 100 percent or first class rate while the toothpaste took only the 70 percent rate. Deals always take the rate of the highest rated item in the combination and no salesmanager should ever put on a deal of any kind without first consulting with his traffic manager, and if he hasn't got a really good traffic manager, he should go to a traffic consultant. In the case cited above the company lost $70,000.00 before the deal could be called off.

The days when you enjoyed a 3 or 4 percent shipping cost are gone forever. The average for the drug and cosmetic industry is about six percent. Some firms are paying eight and I know a few that are paying ten and one case even twelve. Shipping costs have become a major cost in business operations. In many plants shipping costs in total dollars are bigger than the entire factory payroll. In still other plants shipping costs are larger than the factory payroll *and* the entire factory overhead combined. I have a client in an allied industry whose freight costs exceed in total the combined cost—labor and overhead only—of both his plants together.

And the end is not in sight. The express companies have already been granted a $1.50 minimum for any single package regardless of how little it weighs and have also been promised by the ICC a further increase of 12 percent the first of the year. Trucking companies are seeking and probably will get a $5.00 minimum on all packages handled regardless of weight. This is of course for LTL shipments. The railroads also are in there pitching for more money. Already the carriers have persuaded the Post Office to limit the size of packages shipped from first class post offices to 100 cubic inches and this regulation becomes effective January first.

All this points to the fact that at long last your traffic manager has become a very important guy in your organization. But first, be sure you have a

Corner of tablet manufacturing department at Plough, Inc., Memphis, Tennessee. Stokes Model BB-2 tablet machines produce up to 1500 tablets per minute each.

54 Countries Know St. Joseph Aspirin

St. Joseph Cold Tablets and Anti-Histamine Tablets as well as a child's size (1¼-grain) Aspirin, Mexsana and Moroline products, Mufti Spot Remover, are other well-known products of the famous line of Plough Remedies.

Plough has recently dedicated a new big plant in Memphis, Tennessee . . . a long step from the little business started with $125 of borrowed capital in 1908.

From the beginning, accurate weight, accurate dosage, uniform density and satin-smooth finish have been stipulations of the manufacturer. With the vast growth of the business, high production has become an additional necessity. Stokes equipment — tabletting presses, oscillating granulators, mixers — have been equal to every demand of this exacting pharmaceutical manufacturer.

STOKES

STOKES MAKES

Plastics Molding Presses,
Industrial Tabletting
and Powder Metal Presses,
Pharmaceutical Equipment,
Vacuum Processing Equipment,
High Vacuum Pumps and Gages,
Special Machinery

F. J. STOKES MACHINE COMPANY, 5932 TABOR ROAD, PHILADELPHIA 20, PA.

INTRODUCING

NEUTRAGLAS COLOR-BREAK AMPULS

no filing... simply snap off stem and use!

YOU'LL FIND Neutraglas Color-Break Ampuls are the greatest improvement in ampuls since the development of Neutraglas containers.

Why? Hold one in your hands, bend it until the stem snaps off. It's ready to use! There's no filing . . . no scoring . . . no sawing. Think of the convenience you can now offer users of your products.

Neutraglas Color-Break Ampuls are inert to their contents. Solvents, chemicals, sterilizing agents—even distilled water—find these ampuls indifferent to chemical action. And, because Color-Break Ampuls keep your product pure and unadulterated . . . can't be tampered with, they are ideal for solutions administered parenterally. Decide today to modernize your ampul package.

KIMBLE GLASS TOLEDO 1, OHIO
Division of Owens-Illinois Glass Company

traffic manager and not merely a traffic or a shipping clerk. Between the two there are twenty years of experience in addition to basic training. Traffic is a very complex subject and in some phases it is changing all the time. It is definitely not a subject that can be mastered with a little training and a few years of experience. The best traffic men I know are in their late forties or early fifties and they are still students. So if you have a bright young man handling this important job support him by employing a good traffic consultant. In every large city there are a number of really good ones.

The size, location and type of branches and branch warehouses should be determined by the traffic manager. In most organizations this is done by the sales manager who thinks in terms of sales territories. *There is absolutely no correlation between sales territories and shipping points.*

In most cities there are a number of drug and cosmetic firms which, with a bit of cooperation and organization, could combine shipments to get the benefit of pool car or truck load rates. I made this recommendation some time ago but it fell flat because rates then were not high enough to be alarming and many companies will not cooperate with competitors because the competitors might find out how much they are shipping and to whom. This silly secrecy is ridiculous because your competitors subscribe to the Nielsen or any one of a number marketing services and can tell almost to the dozen how much you are selling and where. We've gotten pretty well over secrecy in our plants and its high time we did likewise about our sales. Competition lies not so much between brand names *per se* as it does in the means by which you persuade your consumers to buy your brands in preference to others.

The possibility of mutual manufacture might be considered especially by the big companies whose liquid products are heavy. There is no reason why a western firm shouldn't manufacture the west coast volume of an eastern firm in exchange for a similar service in the east. This suggestion was made to you here sometime ago but the idea fell flat on its kisser. But if shipping costs keep on increasing the big companies might have to set up mutually owned regional manufacturing companies. This would be better from an economy standpoint than to establish branch plants because there is a limit to the number of branch plants that can successfully be operated by individual companies.

Branch plant operation will again be given a thoughtful look especially by the larger companies. During the war I made a series of studies for a number of large companies to determine whether branch plant operation was advisable. In every case I was compelled to turn in negative recommendations for the reason that, although in several instances, the freight saving would have supported the branch plant, the removal from the main plant of sufficient volume to keep the branch plant operating at an economic level left an unabsorbed amount of overhead to be taken up by the volume remaining at the home plant, that entirely wiped out the freight saving which could be made by the branch plant. It is an interesting fact that while we have applied all manner of engineering talent to production practically nothing has been done to reduce the cost of distribution. It is not impossible that increasing shipping costs may force the issue upon us. As the past quarter of a century is known as the age of mass production; the next quarter may be known as the age of distribution.

Geriatrics

I was asked to define this increasingly important branch of medical science at the APMA meeting in New York. I said I didn't know much about it but at my age when I have to choose between a beautiful woman and a lettuce and tomato salad I choose the tomato.

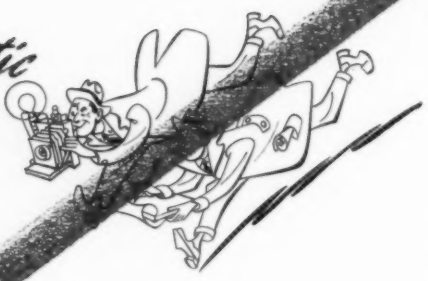
Capitalistic Altruism

In the current issue of Atlantic Monthly Barbara Ward has a significant article on the moral implications of communism. She points out that while the Marshall Plan has held the line for Capitalism in France and Italy, the communist vote in recent elections has remained the same as it was in 1948. Indeed in Italy it increased. She attributes this to the fact that the benefits of the Plan have failed to impress the consciousness of the mass of the working people. The reason for this is obvious. The Marshall Plan benefited the business classes immediately. In other words the Plan succored the capitalists at once. The working classes in Europe have always known that the benefits of capitalism are for the capitalists. Marx recognized this deep schism between workers and capitalists and he mistakenly supposed that the abyss could not be bridged as it has been in this country.

In Europe I have some clients whose securities can be purchased on the open market but the percentage of public ownership is still very small. Much more than control is held by families or small groups of individuals. In this country capitalism in its end-benefits is essentially altruistic. The capitalists are a very considerable group of people and more often than not the capitalists themselves were once workers and many of them are descendants of parents who were laborers or farmers.

As I have said many times before I think capitalism in this country has done a lousy publicity job for itself not only abroad but here too. It is admitted that what held the line in the 1948 Italian elections was the deluge of letters from Italian Americans to their relatives in Italy. The practice of bringing over exchange students will be helpful but it isn't fast enough and anyway students come from the wealthier classes in Europe. We should import at government expense boat loads of laborers and farmers to visit their relatives here. Let them see the country and how capitalism helps the working man. On their return they would

—catch Pneumatic in the act...



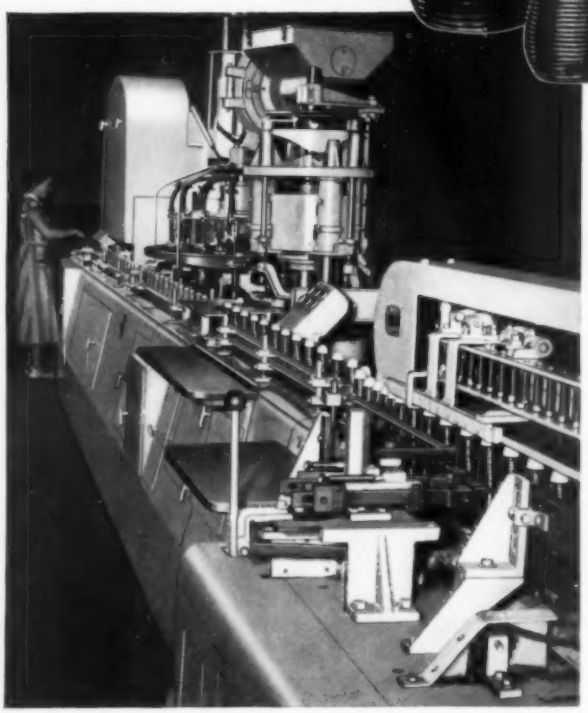
...doing a "LOWER COST PER CONTAINER" job for famed COLGATE products

To production engineers, plant superintendents and top management alike, Pneumatic equipment in action is a pleasureable, profit making picture to behold.

That's the picture at Colgate-Palmolive-Peet Company where the latest high speed Pneumatic bottling lines clean, fill, cap and label the containers for Halo and Palmolive Shampoos, and Cashmere Bouquet Hand Lotion, too! That's the picture in so many of America's leading plants that it is obvious Pneumatic has "got something" no other equipment can match.

That "something" can be summarized simply as (1) Sounder basic engineering (2) Highly practical, yet imaginative and modern design (3) Precision construction. Result — smoother performance, longer wear — "lower cost per container" operation.

PNEUMATIC SCALE CORP., LTD., 70 Newport Avenue, Quincy 71, Massachusetts. Branch Offices in New York, New York; Chicago, Illinois; San Francisco and Los Angeles, California; Seattle, Washington.



At right: Conveyor synchronized bottling line at Colgate's Jersey City plant. Similar Pneumatic equipment is operating at Jeffersonville, Indiana and Berkeley, California.

PNEUMATIC

PACKAGING AND BOTTLING MACHINERY

constitute capitalist "cells" in their several countries. The communists import to Moscow likely candidates for training and then return them to their native countries to spread the doctrines of communism. Aren't we smart enough to adopt a method which has been so successful throughout the world and improve on it?

The following information is supplied by manufacturers of the equipment described and claims made below by these manufacturers are passed along for what they are worth. Presentation of such notice in this department is not to be taken as endorsement of the claims or of the equipment.

Rectangular Shaped Corrugated Sleeves

A new addition to the line of corrugated paper products and specialties made by Shelton Manufacturing Co., Inc. has been announced recently. Called "Shelltube," it is a single-lined tube, scored for rectangular shaping and securely gum taped at the seam.

It is being made available in tubed rolls of 250 lineal feet or cut to specified lengths. Minimum tube size is 3" but practically unlimited beyond this dimension. Stock weights are 35, 55, 70 and 100 pound substance. Popular sizes 5¾", 8¾", 11½" and 14½" will be kept in stock to provide immediate delivery. Samples and detailed information can be obtained by writing to Shelton's Newark plant, 591 Ferry St., Newark 5, N. J.

Blood Chest

A massive shipping chest for fresh whole blood is made by Bailey Engineering Co. of Ramsey, N. J., for the Armed Services' Medical Procurement Agency. The case is made of V board produced at the Thames River, Conn., plant of Robert Gair Company, Inc., New York, manufacturers of folding cartons, paperboard and shipping containers.

The chest contains 24 bottles of whole blood placed on metal racks with 3 bottles per rack. Construction of the steel wire racks prevents shifting of the glass bottles. A center can is filled with crushed ice; bottles and can are then covered with a glass fibre cushion. A top corrugated carton holds 24 recipient sets including hose and hypodermic needles with which to give transfusions.

This chest is actually a double wall container; space between the two walls is filled with phenolic foam insulation which adds to the structural rigidity of the walls and also acts as a fire-resistant agent. Walls are made of Gair's V board, waterproofed in the paper-making operation by use of plastics. This board can withstand more than the 24 hours' immersion in surf without disintegration that is required by joint Army and Navy procurement specifications.

Measuring 24 by 24 by 26 inches, case is finished with dark O.D. green water-repellent vinyl paint, then printed in bright red by silk screen process. Inside of chest is also covered with cream colored vinyl paint which prevents any absorption of condensation by the V board. All seams are cloth taped before paint spraying. Carriage bolts with wing nuts hold the 3-inch-deep cover on securely.

Shipped in this case, whole blood is used in Korea seventy-two hours after its collection in New York City. It's flown via California, Wake Island and Tokyo to the battlefield. At the end of that time, there's still ice remaining in the case; temperature on the inside of the chest does not exceed 50° at any time.

The Bailey company has designed the chest so that it withstands any accidental rough handling in shipment. The Armed Services state that due to construction of this case they have never yet lost a bottle of blood.

Low-Lift Electric Truck

A new riding-type truck that speeds up the movement of skid platforms and skidded cases has been added to the line of Raymond Electric Trucks by The Raymond Corporation, formerly LYON-Raymond Corporation, Greene, N. Y., manufacturers of material handling equipment.

The Raymond Low-Lift, as the new truck is named, is similar in design to the company's recently introduced pallet-type Low-Lift Electric Truck. It has a 4,000 lb. capacity and will travel up to 5 MPH loaded, 6 MPH empty.

The new Raymond truck has the patented offset drive and patented stabilizing caster arrangement as in the company's other electric trucks. This enables it to operate easily in narrow hand truck aisles and will turn at right angles from aisles narrower than the overall length of truck and load. As a result, it can be used in truck trailers, boxcars, elevators and cramped production areas.

Available in three lowered heights—6", 9" or 11"—The Raymond Low-Lift features a standard 4" lift. The platforms are made in two widths—18" and 24"—and are offered in standard lengths of 30", 36", 42" and 48".

The new Low-Lift Truck is powered by the standard Raymond tractor, using a 12 volt, 400 ampere hour

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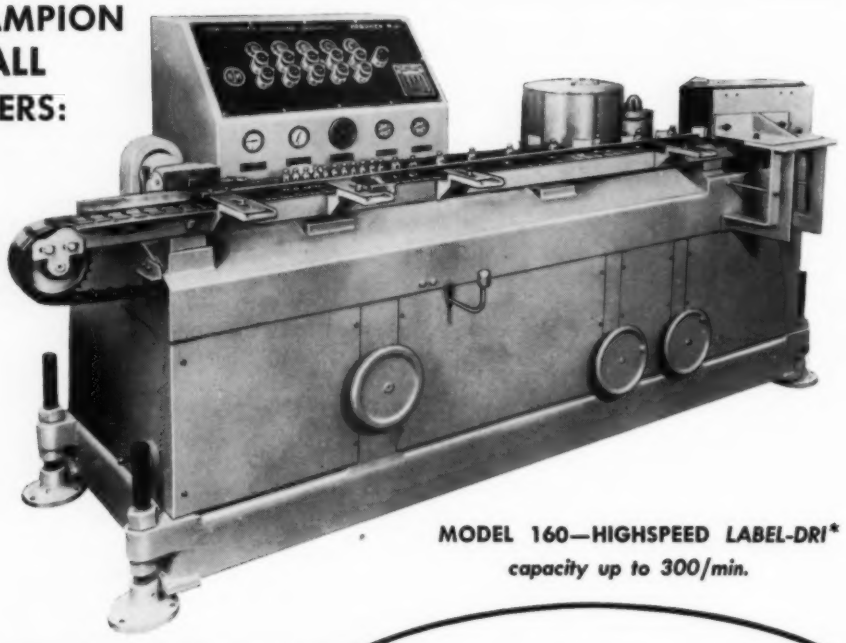

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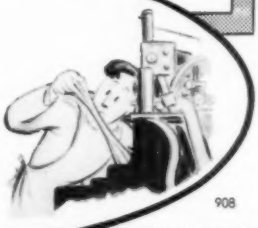

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battery. It has rubber-tired wheels as standard equipment. Complete information on the new truck can be secured by writing the Raymond Corporation, formerly LYON-Raymond Corporation, direct at 141 84 Madison Street, Greene, N. Y.

Laboratory Freeze-Drying Units

Serums, general protein solutions, and other materials usually handled in small quantities in the research laboratory are easily dried in the Stokes Model 102 freeze-drying unit. Drying capacity of this unit is 200 milliliters per run, and desiccant need not be regenerated until 800 milliliters of water have been absorbed.

The eight-port manifold has a separate valve on each port to permit aseptic sealing of containers under secondary vacuum, and triple connectors permit han-

dling 24 containers at a time. Small hospitals desiccating plasma from out-dated blood will find the unit's ability to handle one 250-milliliter bottle at once convenient. This equipment is supplied with or without vacuum pump and McLeod Gage.

Coding Unit

A new automatic package imprinting machine, the Rolacoder #401, has been introduced by Adolph Gottscho, Inc., Hillside 5, N. J. Designed to fill the need for a compact, friction-powered production-line attachment that will produce spot-registered imprints of code-dates, weights, sizes, flavors and other supplementary information on small-size cartons, the new machine is specially engineered and sturdily constructed to perform efficiently over long periods of time on modern high-speed production lines. It is also suitable for imprinting cans, canisters and bottles.

The Rolacoder #401 imprints legends containing up to four lines of copy (occupying a maximum depth of 1" and a maximum length of 5") on the top or side of cartons as they pass through a cartoner or sealer, or along a chain or belt conveyor. It is said to make a single accurately located imprint in any designated spot on cartons whose imprint side measures between 1-¾" and 6-¾" in the dimension parallel to direction of package travel.

A feature of the new imprinting machine is Gottscho's

new Metalok type-holder which is reported to lock the interchangeable rubber type securely in place so that it cannot slip or move out of position during the imprinting operation. The Metalok holder consists of a series of concentric metal rings which open by a turn of a key to accept or release type when copy changes are necessary, and are locked tight by the same key to grip the type.

Another feature of the imprinter is a twin-roll inking system that transfers a thin film of ink to the type surface. According to the manufacturer, this system prevents both over-inking and under-inking.

Normally, the Rolacoder #401 is pre-set at the factory for cartons of a specific size but, when desired, may be obtained with interchangeable cams that permit the user to modify machine action at will in order to imprint cartons of various sizes within the Rolacoder #401's maximum-minimum range. It is also furnished with appropriate mounts for installation in either a vertical or horizontal position to imprint from top or side of the line. The imprinting machine is easy to install, and complete instructions for doing so are supplied with the unit.

A new data sheet describing the Rolacoder #401 as well as the company's standard and "Junior" model Rolacoder imprinters, is available upon request to Adolph Gottscho, Inc., Hillside 5, N. J.

New Pfaudler Lining

The Pfaudler Co. announced a new acid-alkali-resisting glass at the 23rd National Exposition of Chemical Industries which opened in New York City, November 26. It is intended for use in the pH range from 9 to 12 and at temperatures up to 212°F. Pfaudler laboratory tests show that, within this range of temperature and pH, the new glass has at least three times the alkali resistance of the present Pfaudler glass and has essentially the same acid resistance. The new glass is not intended for use with high concentrations of strong alkalis at high temperatures.

It is anticipated that this new glass will be especially useful in processes involving a neutralization reaction, where the equipment is subjected to alkaline solutions

(Continued on page 88)

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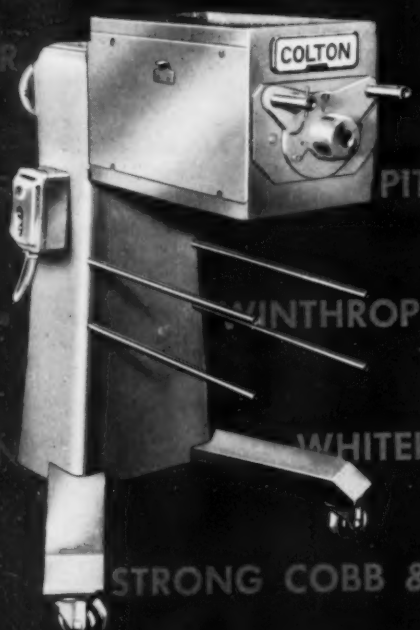

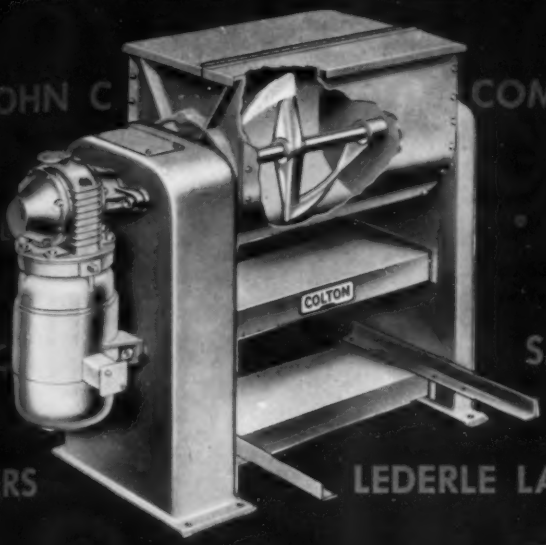

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(*Continued from page 85*)

at moderate temperatures. It should also be helpful in polymerizers for organic plastics, where the polymerization is often carried out at a pH of 10 to 12, and at a temperature below 212°F.

Several Pfaudler customers now have equipment of commercial size lined with the new glass in plant use on an experimental basis. If the service obtained from these units bears out laboratory predictions, the new glass will provide a better all-purpose lining than any heretofore available.

New Vacuum Processing Systems Catalog

The F. J. Stokes Machine Company has published a new brochure on Complete Vacuum Processing Systems. The 12-page catalog describes, pictures and gives complete specification tables of many types of vacuum equipment widely used in industrial processes, in private and government laboratories, and in schools and universities throughout the world.

These include: rotary and rotating vacuum dryers, vacuum shelf dryers, freeze-drying equipment, impregnators, extraction and solvent recovery apparatus, and vacuum pumps.

A copy of the new publication, Catalog No. 715, "Complete Vacuum Processing Systems," is available by writing to the F. J. Stokes Machine Company, 5500 Tabor Road, Philadelphia 20, Pa.

Metering Pumps

A new Bulletin on Milton Roy *Motor-Driven* Controlled Volume Pumps has been published recently by Milton Roy Company, 1300 East Mermaid Lane, Philadelphia 18, Pa. This 24-page, 2-color, illustrated Bulletin—Bulletin No. 251—will be of interest to anyone faced with the need of pumping practically any liquid, from heavy viscous liquids to light solvents, solids in suspension, abrasive slurries, hot or cold liquids, liquefied gases, and other materials.

Bulletin No. 251 illustrates and describes standard Milton Roy Motor-Driven Controlled Volume Pumps as well as models designed for special applications. Also included are details on how pump capacity can be regulated by plunger speed and plunger stroke adjustments. Capacity pressure selection tables form a part of this Bulletin, too, to help users select the right pump for their particular application.

Free copies of Milton Roy Bulletin No. 251 may be obtained by writing Milton Roy Company, 1300 East Mermaid Lane, Philadelphia 18, Pa.

Vacuum Desiccator

Small vacuum desiccators (up to 160 mm., inside diameter), which can break with as much suddenness and almost as much violent actions as larger models, can be used with utmost safety when enclosed in a new "junior" size "Desiguard." This holder is comprised of two cylindrical portions, which enclose the glass object when the two parts are fitted together. The lower half has a solid surface to retain any liquids that might be spilled in event of breakage, and the upper part is perforated to relieve any inward or outward pressure. An opening in the top permits the desiccator neck and stopcock to protrude. The aluminum "Desiguard" is light, yet strongly constructed, and is provided with handles for use in carrying the safety unit with desciccator from one place to another. A previously-available model is for use with desciccators up to 250 mm. in width. The smaller model is about 8 inches in diameter and 9 inches high. Both are manufactured and distributed exclusively by Fisher Scientific Company, 717 Forbes Street, Pittsburgh 19, Pa.

Autoclave

A new electrically heated 6-gallon autoclave is announced by Andrew Technical Service, 3805 N. Clark Street, Chicago. Designed for laboratory operations which necessitate elevated temperatures in a water vapor atmosphere, this autoclave, with integral heating unit and thermo-switch, now makes available

a convenient and fully portable sterilizer for biological, medical use, as well as a pressure vessel of generous (25 quart) capacity for experimental work in many fields.

Features comprise a heavy cast aluminum body and cover; pressure-temperature control, by means of a thermo-switch, dial control for pressures from 0 to 21 pounds, with corresponding vapor temperature; pressure-temperature gauge, 0 to 30 lbs., showing corresponding temperatures; safety release valve which automatically opens if pressure exceeds 21 pounds (approximately 261°F); Calrod heating unit; Fenwal thermoswitch, operating differential 5°F; ground-joint metal-to-metal closure with no troublesome gaskets; cast aluminum wiring canopy to protect control components; red pilot light, on-off control switch.

The apparatus measures 18″ high by 16″ diameter overall, and comes complete ready to operate with a pressed aluminum container 11-½″ diameter x 8-½″ deep and a trivet for supporting instruments, bandages, tubes, flasks or other materials.

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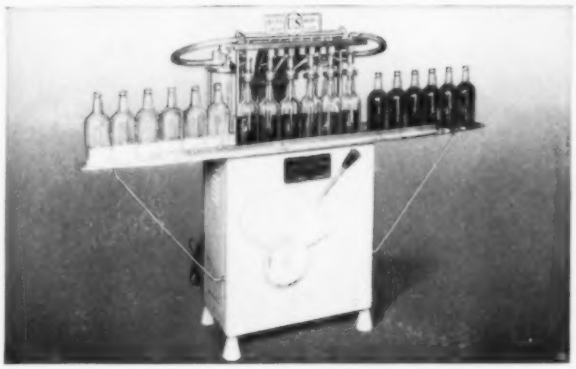

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Industry's Books

Handbook of Dangerous Materials, by N. Irving Sax, Toxicologist, General Electric Co., assisted by M. J. O'Herin, Fungicide Laboratory, General Electric Co., and W. W. Schultz, General Engineering Laboratory, General Electric Co., Schenectady, 848 pp, Reinhold Publishing Corp. New York, $15.

This complete reference book covers over 5,000 hazardous industrial materials, and including trade-name products, offers information of utmost value to those concerned with safely handling, storing or shipping chemicals and other dangerous items. These materials are alphabetically arranged, cross referenced and indexed. Information about each material includes: maximum allowable concentration, toxicity, flammability, storage and handling, physical properties, formulas and shipping regulations. Wherever possible, detailed information is given on symptoms, treatment and antidotes, first aid suggestions, personnel safety precautions, fire extinguishing agents and other pertinent data. In addition the complete text of the ever-important Interstate Commerce Commission Shipping Regulations is included for detailed instructions on labelling, packaging, storage, shipping and all relevant subjects. Not only is this the most useful and complete book on the hazards of general chemicals and industrial materials, but it also covers the important fields of explosives, fungus infections and radiation safety.

Biological Antagonism, The Theory of Biological Relativity, by Gustav J. Martin, Sc.D., Research Director The National Drug Company, Phila., 516 pp., The Blakiston Co., Phila., $8.50.

This is a thorough, complete, yet concise, presentation of the theory of biological relativity—that "general law" which underlies all biological activity and is fundamental to the resolution of all problems in biology. The author reviews biological antagonism as reflected in natural and synthetic displacing agents, covers antagonism as seen in the fields of amino acids, purines, pyrimidines, vitamins, hormones, minerals and as it forms the basis of immunology, pharmacology, and chemotherapy. Finally, he offers the concept of biological relativity based upon extensive study of these biological antagonisms. Research workers in immunology, pharmacology, chemotherapy, medicine, and the entire field of biology will find the 1900 references throughout the book extremely helpful. Carefully selected by the author because of their pertinence to the subject, they present a comprehensive survey of all the literature in the field.

Oil, Fat and Soap, by Benjamin Levitt, Fellow, American Institute of Chemists, Chief Chemist, The Curley Co., 230 pp., Chemical Publishing Co., New York, $6.

Beginning with the history of soap manufacture, the author discusses all phases of the industry, such as vegetable oils, animal and vegetable fats, soap, shampoo and detergent formulations and the saponification process, specialty soaps and processes, fatty acids and glycerin, synthetic surface agents, miscellaneous tests for the evaluation of soap products, analyses of oils, fats and soaps. Tables, illustrations, and a glossary of terms increase the usefulness of this book.

Pharmaceutical Dispensing, by William J. Husa, Ph.D., Professor and head of the Department of Pharmacy, University of Florida, Fourth Ed., Illus., 811 pp., Husa Brothers, Iowa City, $6, ($6.50 outside the U. S.).

In preparing this edition, the entire book has been thoroughly revised so as to delete obsolete material and replace it with new information and new prescriptions. Among the recent developments discussed in the text are soluble ointment bases, methylcellulose jellies, the use of blenders in the preparation of emulsions, the sanitary counting tray for tablets, the new Cooper mortar and pestle, the microfilming of prescriptions in order to save space in filing, the receiving of prescriptions by wire recorder attached to the telephone, etc. A section on veterinary dosage has been added. The changes in pharmacy in the army and navy are considered in the chapter on institutional pharmacy. Particular attention has been given to the revision of the chapters on incompatibilities. New sections have been added on antihistaminics and quaternary ammonium compounds. New material on incompatibilities of other drugs has been included. The most valuable prescription information is brought together in one volume covering the compounding and dispensing of all types of prescriptions, as well as adjustment of osmotic pressure and pH, incompatibilities of drugs and specialties, packaging and labeling of prescriptions, professional pharmacy, hospital pharmacy, dental pharmacy, tablet manufacture, prescription pricing, legal aspects of prescriptions, detailing the doctor, etc.

Hydrogenation of Fatty Oils, by H. I. Waterman, Professor of Chemical Technology, Delft Technical University (Netherlands), with the collaboration of C. Boelhouwer and L. J. Revallier, 254 pp., Elsevier Publishing Company, New York, $6.50.

Animal and vegetable oils and waxes are the raw materials of a wide range of industries, and the sources of such materials include organisms so diverse as the sunflower and the whale, the pig and the coco-nut. This book is a consideration of some technical problems in the light of the latest research, and hence will assist scientists in all those industries which use such materials for the production of edible fats (notably) margarine, soap, pharmaceutical preparations, lubricating greases, and the like). Since the book is intended as a concise survey of the subject, as well as an indicator to further research, it gives a sketch of the principal sources of raw materials and the methods used to obtain and to refine them, with some useful world statistics; and special attention is paid to analytical methods as applied to the classification of natural oils, and the examination of the products of hydrogenation.

Animal Health

Honey Injections

According to a note in *Veterinary Medicine* (46:78, 1951). The intravenous injection of 250 to 500 cc. of 20 to 40 per cent honey solution is recommended in Germany for the treatment of young horses and other animals. It has effects similar to glucose solutions in that it is an energy source. It is nontoxic and is claimed to increase the animal's resistance against infectious diseases.

Curare in Canine Surgery

Following his experiences with curare in at least 250 cases of canine surgery, D. Pickett (*J. Am. Vet. Med. Assoc.* 119:346) has come to the following conclusions with respect to this muscle-relaxing agent: (1) The use of curare as an adjunct to nembutal and pentothal sodium permits the use of less of the anesthetic agent to produce satisfactory muscular relaxation. (2) Three-eighths unit of curare per pound of body weight seems to be the most satisfactory dosage. However, curare, like nembutal, should be given to effect. (3) A full two minutes should be taken for injection of curare. (4) If artificial respiration is maintained, the dose of curare may be cautiously increased. (5) Atropine and ether, until further study, should be considered contraindicated when curare is used. (6) Prostigimine methylsulfate, 1:2,000 in 2-cc. doses, seems to be a reasonably good antidote, but a second and third dose may be necessary. (7) Changes in blood pressure during the use of curare are insignificant. (8) The concentration of curare now commercially supplied (20 units per cc.) is too concentrated for satisfactory dosage and should be diluted to 2 units per cubic centimeter. (9) Curare has no analgesic effect.

Therapy of Swine Dysentery

An opportunity to test several therapeutic agents was offered to L. E. Boley, G. T. Woods, R. D. Hatch and R. Graham (*Cornell Vet.* 41:231, 1951) when an outbreak of swine dysentery or a clinically indistinguishable disease occurred in pigs in the University of Illinois herd. *Vibrio coli* was isolated from 3 to 16 animals and *Salmonella* types from 2. These animals failed to respond to sulfonamide therapy. The administration of sulfathalidine at a level of 0.25 per cent in the ration resulted in 40 per cent recovery, and sulfamethazine at a level of 0.2 per cent in 57 per cent. Recovery in untreated controls was 44 per cent. Sodium arsanilate, 2.1 grains of arsenic per gallon of drinking water, resulted in 83 per cent survival. The surviving animals continued to show symptoms of unthriftiness, though dysentery symptoms completely subsided. Oral administration of 100,000 units of bacitracin for six days resulted in 96 per cent recovery, and 50,000 units in 80 per cent recovery, as contrasted with 44 per cent in the untreated controls. The recovered animals appeared thrifty.

Antibiotics in Animal Nutrition

The status of antibiotics in animal nutrition was well summarized in the following statement which appears in the December, 1951, issue of *Veterinary Medicine:* An antibiotic feed supplement is a feeding material incorporated in the mixed ration primarily for its antibiotic content. This designation officially recognizing and defining these supplements was announced following the October 1950 meeting of the American Feed Control Officials in Washington D. C.

When offered for sale, antibiotic feed supplements must be labeled with the name and amount of the specific antibiotic. They must contain not less than 1 Gm. of antibotic per pound and be declared for n u t r i t i o n a l use only. Furthermore, directions shall declare that no more than 50 Gm. of the antibiotic shall be added per ton of mixed rations as consumed by animals. In the feed bag offered for sale, it is not necessary to declare exact amounts of supplement added nor the name of such product, but only that it has been added. The reason for this is that the amounts added cannot be detected nor identified after mixing.

During the past 18 months "antibiotics" has become a common word of feeders of swine and poultry. Widespread use followed closely releases of voluminous experimental data which indicated marked growth stimulation, yet the manner of action is uncertain. There is lack of evidence to date that antibiotics are effective nutritionally for increasing milk or egg production and no deficiencies result from their deletion from the ration.

There are many unanswered questions concerning use of these chemotherapeutic agents in nutrition and regarding what may be considered a therapeutic level. Finally, the sum total of our information, in brief, is that antibiotics are complex chemicals produced by some microorganisms which have the capacity to inhibit or destroy the growth of other microorganisms. A few of these agents have been observed to increase growth and feed efficiency when added to the rations of young, growing swine and some classes of poultry.

Chloromycetin in Small Animal Practice

The clinical use of chloramphenicol or chloromycetin as a therapeutic agent against several bacterial infections encountered in veterinary medicine is reported by R. G. Schirmer, F. E. Eads and J. P. Newman (*Vet. Med.* 46:485, 1951). Chloromycetin, as found in their study, was 80 per cent effective in 10 dogs and cats having clinical pneumonia, 78.7 per cent effective in 33 dogs against the secondary invaders of canine distemper (seven dogs showing nervous m a n i f e s t a t i o n s were not changed by the drug), 92.6 per cent effective in 27 dogs with bacterial cystitis or nephritis, and 91.6 per cent effective in 36 cats with infectious feline panleukopenia (with white blood cell counts ranging from 100 to 1,300 per cmm. of blood), as well as in such disease entities as acute infections, septicemias, metritis and non-specific enteritis.

Chloromycetin has the advantage that it may be administered orally and is singularly devoid of gastrointestinal, neurotoxic, cutaneous or allergic reactions.

Of kindred interest is the report of F. Gasow, E. Oja and F. E. Eads (*N. Am. Vet.* 32:841, 1951). They state that Chloromycetin is very useful in the treatment of bacterial secondary infections accompanying canine distemper and acute gastro-enteritis. Chloromycetin may be given orally every six to eight hours for varying lengths of time without untoward reaction. According to their findings, 80 mg. of Chloromycetin per Kg. of body weight daily, in divided doses, in most cases, will successfully combat the secondary invaders of distemper. Only 40 mg. per Kg. daily, in divided doses, is required in acute gastroenteritis. However, the use of Chloromycetin in the treatment of nervous disorders accompanying canine distemper is questionable.

Chloromycetin proved to be most effective in acute intestinal disorders diagnosed as gastro-enteritis. It is of great value for the treatment of diarrheas in dogs.

Antibiotics vs Parasitic Worms in Chickens

Noting that worm parasite infections undoubtedly occur in domestic animals more universally than do the relatively virulent and acute infections caused by bacteria and viruses, A. C. Todd (*Poultry Sci.* 30:763, 1951) undertook a series of experiments to determine the effects of three antibiotic agents, penicillin, streptomycin, and neomycin, upon experimental infections in chickens with the large intestinal roundworm, *Ascaridia galli*. The data indicate that these agents in the diet of chicks can restrict the size (in terms of length) and percentage of development of the parasite, and in so doing may enable the parasitized animals to achieve greater weight gains. The three tests indicate that penicillin fed at the rate of 6.8 mg./lb. feed can inhibit development of the test parasite in the intestine of chicks. At the rate of 15 mg./lb. feed anthelmintic action of penicillin is considerably enhanced and significant reductions were found to occur in numbers of worms developing from controlled exposures. In a single comparison of penicillin, streptomycin, and neomycin, each fed at the rate of 15 mg./lb. feed, the anthelmintic action of penicillin was somewhat superior to the other two antibiotic agents.

In these experiments inhibition of development of the parasite and reduction in worm numbers, in two of the three tests, were accompanied by significantly greater weight gains in birds on the penicillin ration. Superior weight gains in birds fed the penicillin rations in the second test apparently were not due to reduction of worm numbers but rather to the B_{12} added from the penicillin base or from the penicillin, or from another growth-prompting factor inherent in the penicillin itself.

Trace Minerals in Swine Feed

According to a note in the *Journal of the American Veterinary Medical Association* (119:451, 1951) the Iowa Agricultural Experiment Station has released the following financial advantages from the feeding of trace minerals to swine, based on a herd of 20 cows.

Sows fed trace minerals wean nearly one more pig per litter, netting 39 pounds increase in weaning weight per litter. At the current value of $15 per weaned pig, this adds $300 to the gross value of the litters from 20 sows. The cost of feeding trace minerals to 20 sows is $2.25, a net saving of $297.75. Feeding trace minerals reduces the feed costs from weaning to 240 pounds by $175.89 for 130 pigs from 20 sows. The hogs reach market weight seven days earlier when fed trace minerals. Thus, the total net savings by feeding trace minerals in producing one set of litters from a 20-sow herd is $473.64, plus the man power saving resulting from the hogs going to market seven days earlier.

Molluscacide Tests on Cattle

According to J. R. Herdt, L. N. Loomis and M. O. Nolan (*Public Health Rep.* 66:1313, 1951), investigators in the Laboratory of Tropical Diseases for several years have screened chemicals in an effort to develop molluscacides for the destruction of the snail intermediate hosts of the human schistosomes. Certain compounds that were active against snails in the screening tests were tried under natural conditions in Texas and Puerto Rico. In the Texas tests, two pentahalogenated phenols, pentabromophenol and sodium pentachloropheante, showed promising molluscacidal activity. In Puerto Rico, these same two compounds together with other halogenated chemicals, copper pentachlorophenate, 2,4,6-tribromophenol, 2,4,6-triiodophenol and its sodium salt, proved to be very effective molluscacides.

In new studies, Herdt, Loomis and Nolan determined the effect on cattle of repeated sublethal doses of three potential molluscacides, sodium pentachlorophenate, copper pentachlorophenate, and pentabromophenol The chemicals were given to three young bulls in their drinking water at a dosage of 7.6 mg./kg./day for at least five weeks. No significant deviations from normal were found in pulse, respiration rate, temperature, urinalyses, or in blood counts. Post-mortem examinations revealed no toxic manifestations. It is believed that these halogenated phenols can be used with safety as molluscacides in the field provided reasonable precautions are taken in their application.

Vitamin B_{12} in Chick Rations

Research workers at the West Virginia University Agricultural Experiment Station state that poultrymen must feed a ration that contains vitamin B_{12} if they expect maximum growth in chicks. Results of tests on chicks of the West Virginia Station also show that poultrymen cannot rely upon the ration of the breeding hen to always supply the chick with a sufficient amount of vitamin B_{12}.

Station chicks hatched at different times of the year have shown a different response to vitamin B_{12} and to rations designed to rapidly deplete the chicks of their reserves of this vitamin. The chicks were hatched from the same breeding hen. The hens were fed the same rations containing vitamin B_{12} throughout the year. January-hatched chicks, after being fed a ration deficient in the vitamin for two weeks, showed a very definite increase in growth rate within a week after the vitamin was added to their diet. The February-hatched chicks, however, required two weeks to show a slight response, and a definite growth stimulation was not seen until the end of the third week. Another indication that the amount of vitamin B_{12} stored in the chicks at hatching time varied between hatches was seen when chicks were fed rations designed to rapidly deplete them of their B_{12} reserves. The growth of the January-hatched chicks was greatly retarded in two weeks, but the chicks in three later series of Station growth trials were not retarded so easily.

Work at the West Virginia Station substantiates the present practices of commercial feed companies who include vitamin B_{12} in their chick starters and broiler rations the year around.

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Canadian Tests on Insect Repellents

The results of exensive investigations on insect repellents have been reported to the Chemical Institute of Canada by D. E. Piper, R. H. Hall and G. F. Wright (through *Ind. & Chem.* 43:11A, Nov. 1951). Throughout the series of tests with various compounds, this group found that a boiling range of 230° to 260°C. was a favorable physical property. Compounds with low boiling points vaporized too rapidly and those with high boiling points apparently failed to vaporize sufficiently to provide a protective atmosphere.

The equipment used in the screening tests for the various compounds prepared by this group consisted of a wire-mesh screen cage containing about 1000 *Aedes aegypti* mosquitoes. The subject's forearm is covered with 1 gram of the repellent and inserted in the cage for 3-minute periods every half hour. The total elapsed time before the first, second, and third bites is recorded and used as an index of repellency.

The initial tests were made on the old standby repellents, dimethyl phthalate, 2-ethyl-1,3-hexanediol (better known as 612), and Indahone. Each of these repellents, which are commonly mixed as a 6-2-2 formulation of the three, was tested separately. Several tests were run using powders or creams impregnated with the repellent, but it was obvious that the liquid form was much more effective. It was observed that in making these screening tests, it is necessary to consider not only some human idiosyncrasies, but such, factors as the effects of temperature perspiration and skin texture as well.

The group prepared some 400 compounds and mixtures, arranged according to functional groups, for testing. Of the monoalcohols, cinnamyl alcohol gave the most favorable biting report (most favorable to the subject, that is). There was pronounced difference in the efficacy of the alcohol and its acetate. From this and related observations, they generalized that the hydroxyl group was important for repellency and that substitution of the acetate usually ruined it as a repellent. In a series of α-hydroxy, methoxy, and acetoxy esters, a marked superiority of the hydroxy over the acetoxymethyl ester was noted. In almost all cases, the presence of a phenyl group was found to be objectionable to the mosquitoes. The aldehydes and ketones were relatively ineffective, but hydroxy ketones were good repellents.

Only ten of the 400 organic compounds tested were considered by the group as worthy of further consideration. The five best repellers are listed the following table:

	Time to Bite, Hours		
	1st bite	2nd bite	3rd bite
d,l-Benzyl lactate	6	6	7
70% 2-methyl-1-phenyl-1,2-propanediol-+30% ethyl mandelate	6	6	6
1-Hydroxy-1-phenyl-2-propanone	6	6	6
1-Methyl-1-phenyl-1,2-propanediol	5.5	5.5	5.5
Ethyl mandelate	5	5	5

The other five compounds considered worthy of further consideration were: ethyl α-hydroxydecanoate; 4-phenyl--1 3-dioxane; 2-hydroxy-1-phenyl-1-propanone; 2-hydroxy-2-methyl-1-phenyl-1-propanone; and a mixture of 20 per cent piperonal and 80 per cent methanol. Although all of them show more pronounced repellency than any of the three old standby repellents, it is stressed that these ten compounds have gone through only the preliminary biting tests. A true evaluation must wait for field tests, and toxicological and dermatological examination. Unfortunately, most of the compounds are solvents for many plastics and synthetic fibers. The "perfect" repellent apparently has not yet been found.

New Cold Waving Agents

In a report on progress in permanent waving, appearing in the *Manufacturing Chemist* (22:314, 1951), attention is directed to the new cold waving agents described by K. Schwarzkopf in Austrian patent 166, 240. These materials are substituted ammonium sulfides prepared by the reaction of monoethanolamine or some other alkanolamine with hydrogen sulfide. Solutions of these substances produce a wave in the hair without the application of heat and are used in the same way as thioglycollate lotions. The preparation of several agents is described but monoethanolammonium sulfide is said to give the most satisfactory waves. It may be prepared by dissolving 5 parts of monoethanolamine in 45 parts of water and saturating the solution with hydrogen sulfide. The solution is brought to a *p*H between 9 and 11 by the addition of excess monoethanolamine or of concentrated ammonia.

The concentration of monoethanolammonium sulfide in the waving lotion is preferably between 5 per cent and 15 per cent. A finishing rinse containing an oxidizing agent and an organic acid is applied to the hair after it has been treated for the required length of time with the waving lotion. The oxidizing agents recommended are those customarily used in connection with cold waves, such as hydrogen peroxide, potassium bromate and potassium persulphate. The ethanolammonium sulfide lotions are described as having a more pleasing odor than other cold-waving preparations. They are also said to be harmless to the hair and capable of producing waves even in very porous, bleached hair.

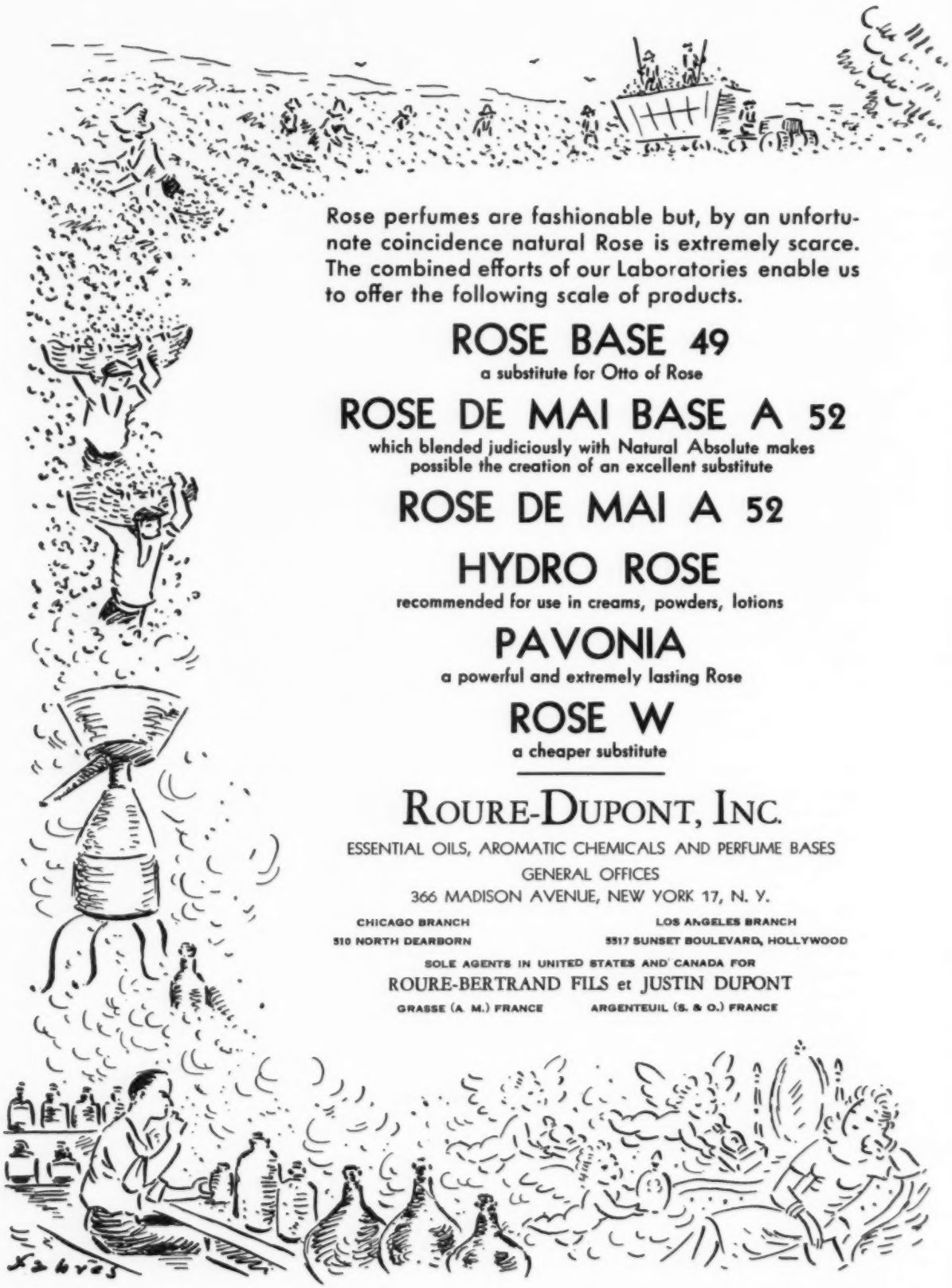
Anti-Midge Cream and Oil

According to a note in the *Perfumery and Essential Oil Record* (42:263, 1951). a new anti-midge cream and oil is now being produced. The cream consists of a good, hard vanishing cream base with an equal quantity of dimethyl phthalate. It rubs in well and leaves no objectionable odor. The oil consists simply of 100 per cent pure dimethyl phthalate.

For experiment purposes the following formula may be useful:—

Stearic Acid, triple pressed	**30.0 Gm.**
Sodium hydroxide	**0.3 Gm.**
Glyceryl monostearate	**5.0 Gm.**
Water	**15.0 cc.**
Dimethyl phthalate	**59.0 cc.**
Oil Citronella	**1.0 cc.**

The stearic acid and glyceryl monostearate should be melted together and to them added the hot solution of caustic soda, with constant stirring. While still warm the phthalate is added and finally the oil of citronella. Both should be stirred well in. The consistency of the



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cream can be adjusted by increasing or reducing the water content, and it may be necessary to add preserving agents.

For a simple anti-midge oil, dimethyl phthalate with about 1 per cent of added oil of citronella will be found quite satisfactory, and may be applied to arms, legs, neck and chest with a piece of cotton.

New Booklet on Sorbitol

A new booklet on the properties and uses of sorbitol and related polyols has been issued by the Atlas Powder Co., Wilmington, Del. The publication provides information on the value of sorbitol for "conditioning" cosmetics and in the production of pharmaceuticals. A series of charts indicate the properties of sorbitol and sorbitol products. A section on sorbitol derivatives is also included. Copies may be obtained from the Atlas Powder Co.

Universal Hydrophylic Ointment Base

After considering the factors involved and the properties desired, I. K. Hoffman (*J. A. Ph. A.*, Pract. Ed. 12:475, 1951) set out to develop a universal hydrophylic ointment, one that would overcome the deficiencies of the more common bases. The result was the following ointment base, each ingredient being chosen because of its individual desirable properties:

A

Cetyl alcohol	**7.0 Gm.**
Stearyl alcohol	**3.0 Gm.**
Beeswax, white	**4.0 Gm.**
Petrolatum, white	**27.0 Gm.**
Glycerin	**8.0 Gm.**

B

Sodium laurel sulfate	**1.0 Gm.**
Water, distilled	**50.0 Gm.**
"Zephiran", concentrate (12.5 per cent) chloride	**0.06 cc.**

Heat A to 80°C. Heat B to the same temperature. Add A to B slowly with constant stirring and transfer at 40°C.

According to Hoffman, his improved base has the following desirable characteristics:

a. Compatible with aqueous and alcoholic agents. b. Compatible with moderately acid and alkaline substances. c. Good stability—before and after dehydration. d. Comparatively greaseless. e. Absorbs up to 90 per cent of its weight of water. f. Easily removed. g. No interference with medication. h. Inexpensive.

Ringworm Ointment

According to G. L. Phillips (*Bull. Am. Soc. Hospital Pharm.* 8:262, 1951). the following formula has been used quite successfully in the treatment of ringworm:

Salicylic acid	**0.5 Gm.**
Iodine	**0.5 Gm.**
Sulfur, precipitated	**5.0 Gm.**
Triethanolamine	**6.0 Gm.**
Zinc undecylenate	**20.0 Gm.**
Undecylenic acid	**5.0 Gm.**
Washable base	**63.0 Gm.**

Dissolve the iodine in the triethanolamine. Triturate the powders with a small amount of the washable base and finally combine and mix all ingredients. Mill if necessary, using stainless or porcelain grinder plates.

Hexachlorocyclohexane Emulsion for Scabies

Scabies, says S. C. Pflug (*U. S. Armed Forces Med. J.* 2:399, 1951) is one of the most troublesome diseases the military dermatologist is required to treat. Hence there is a need for a nontoxic, prompt-acting preparation that can be applied with a minimum of effort. To meet this need, he developed an emulsion based on the gamma isomer of hexachlorocyclohexane ($C_6H_6Cl_6$). He points out that during the last few years, the gamma isomer has been used in a vanishing cream base with great success and was found to be an efficient and apparently nontoxic cure for scabies and pediculosis, but it required much time to apply. This time-consuming element could be avoided through the use of the following emulsion which can be brushed on the skin:

Hexachlorocyclohexane, gamma isomer	**1.0 part**
Stearyl alcohol	**3.0 parts**
Cetyl alcohol	**2.0 "**
Cottonseed oil	**10.0 "**
Sodium lauryl sulfate	**0.5 part**
Polyethylene glycol 400 monolaurate	**1.0 "**
Water, to Wake	**100.0 parts**

A. Dissolve the $C_6H_6Cl_6$ in the oil by heating gently on a water bath; add the cetyl and stearyl alcohol and heat to 70°C. B. Heat the distilled water to 70°C. in which the sodium lauryl sulfate and Polyethylene glycol 400 monolaurate have been dissolved. Add B to A stirring rapidly until cool and homogenize.

Pflug reports that early clinical trials with this lotion were encouraging. Irritation and toxic side reactions appear to be minimal. Toxic reactions to $C_6H_6Cl_6$ can be treated with barbiturates. It is believed that the lotion destroys the eggs as well as the parasites. It is stable at room temperature and with most compounds and it possesses the qualities of being washable and stainless. Dilute alkali, however, is to be avoided as trichlorobenzene will result from the decomposition of $C_6H_6Cl_6$ rendering it inactive. By varying the amounts of cetyl and stearyl alcohol employed, the resulting emulsion can be made to conform to any desired thickness and viscosity.

Folic Acid Stability in Solutions of B Vitamins

In the investigations made by A. R. Biamonte and G. H. Schneller (*J. Am. Pharm. Assoc & Scient. Ed.* 40:313, 1951) the stability of folic acid was studied at *p*H values between 3 and 7 in liquid media containing, individually and conjointly, the following members of the vitamin B complex: thiamine hydrochloride, riboflavin, nicotinamide, pyridoxine, and pantothenyl alcohol. At the lower *p*H levels where water or sucrose syrup was used as vehicle, the folic acid was largely undissolved, whereas at the higher *p*H levels, mixture of propylene glycol and water, the folic acid was completely dissolved throughout the entire *p*H range. Data are presented on the amount of folic acid decomposition after storage at room temperature and also at 45°. In general, riboflavin and thiamine caused considerable decomposition of folic acid in solution. Specimens at the lower *p*H levels where the folic acid was for the most part undissolved exhibited a stability which might be practical for pharmaceutical compounding purposes. Nicotinamide, pyridoxine, and pantothenyl alcohol did not materially affect the stability of folic acid in solution. Data are also presented on the solubility of folic acid in water as a function of as at the higher *p*H levels the folic acid in the concentration used was completely dissolved. In a mixture of stability of folic acid in aqueous media as a function of *p*H. The decomposition of folic acid in the presence of riboflavin and thiamine involves cleavage at the methylene linkage, liberating an aromatic amine, presumably *p*-aminobenzylglutamic acid. This is analogous to the reaction which takes place upon the acid reduction of folic acid as is used in the chemical determination of this substance.

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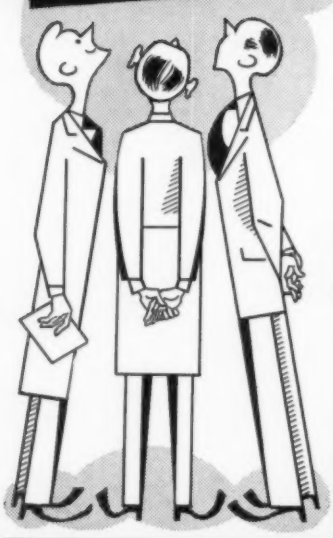

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Patent Thoughts and Trends

*by Thomas Cifelli, Jr.**
PATENT ATTORNEY

Basic "Cold Wave" Patents Issue

The basic U. S. patents heralded in the July, 1951 issue of This Journal were granted on December 4, 1951 as Nos. 2,577,710 and 2,577,711. These patents cover the invention of Dr. Everett G. McDoncugh involving compositions and methods for permanent waving, and especially cold waving, employing mercaptans in alkaline solution at a pH of 7 to 9.5, the solution containing about 1 to 10 per cent of the mercaptan.

While this invention was discussed at length in the July, 1951 issue, its importance in the cosmetics field is believed to warrant an even more detailed consideration now that U. S. patents have actually been obtained. In this connection it is understood that among those who have already secured licenses under these patents are Proctor & Gamble (LILT), Lever Brothers (RAYVE), Daggett & Ramsdell, and Lehn & Fink.

Indeed, there are other indications that these patents are out of the ordinary. For example, the writer has been informed that on the very day that the McDonough patents issued, suits involving the patents were filed in the federal courts of the District of Columbia and New York.

Before taking up the actual disclosure and claims of the McDonough patents, the reader will be brought up to date on the main developments from the time that the U. S. District Court of the District of Columbia handed down its decision referred to in the July, 1951 issue of This Journal and the actual issuance of the patents. It appears that the U. S. Patent Office took the unusual step of appealing the District Court's decision to a higher federal court, but later agreed to a dismissal and allowance of claims which were somewhat modified from those passed upon favorably by the lower federal court. As will be seen, however, McDonough's protection is still quite broad as regards the use of mercaptans.

Because of the apparent interest in this invention, the very unusual procedure of a patent verbatum, with headings added, is being followed here.

The text of U. S. 2,577,710 follows:

Statement of the Problem

This invention relates generally to the art of permanently altering the physical form or shape of hair, and, more particularly, to the art of permanently waving hair.

It is known that the physical form or shape of hair can be permanently altered without injury to the hair structure by utilizing three forces, namely, a mechanical force, a chemical or softening force, and a fixing or setting force. More particularly, in permanent waving the mechanical force is set up by winding the hair in curls as on mandrels. A chemical medium is then (or previously) applied to create the chemical or softening force adapted to place the wound tresses in condition to be permanently molded and altered to their new form as determined by the winding. Finally, means are utilized to fix the wound tresses in their new form, which latter means may consist of an application of heat, generated electrically, chemically or in any other way followed by cooling or a second chemically reactive force to neutralize the chemical waving medium.

The present invention is concerned with the chemical medium which provides the chemical or softening force above referred to, this being identified hereinafter for descriptive purposes only as the waving solution, and comprising an aqueous solution containing the waving agent or agents.

Prior Practices

Heretofore, the practice has been to use a waving agent for such solutions which is an alkaline material, for example, borax, various carbonates and phosphates of alkaline materials, ammonia and ammonium salts, such as the carbonates. Furthermore, soluble sulfites of alkalies and ammonia have been utilized for the waving agent, and sulfides have also been provided for this purpose.

However, with respect to the sulfites and to all other heretofore utilized waving agents excepting sulfides, relatively high concentrations are necessary in order to obtain any satisfactory permanent wave in the hair. Especially with fine hair, there is difficulty in providing a suitable waving solution for obtaining an altered form or shape for the hair which can be termed permanent.

I have found that there is a limiting concentration of these materials above which either hair destruction or injury occurs with less satisfactory wave. It is probably this upward limiting effect on concentration of these waving agents that make it impossible to obtain satisfactory results in a short time where the hair is set by a chemical force, for the solution containing these waving agents must be left in contact with the hair for periods ranging from four to twenty-four hours before a satisfactory wave may be obtained.

The sulfides do not require as long a time nor need quite as great a concentration as the sulfites and a satisfactory solution may be made therefrom for most types of hair and even fine hair under some conditions, but many disadvantages appear when using sulfides, the first of which is the characteristic odor of rotten eggs possessed by such sulfides resulting from generation and liberation of free hydrogen sulfide by hydrolysis. All attemps to mask this odor result in failure and the use of heavy perfumes only serves to minimize the objectionable odor. Secondly, these sulfides have a tendency to cause tarnishing and blackening on metal, particularly jewelry, silverware, and the like, which is a further objection to their use in the waving lotion. Furthermore, the disgusting odor which accompanies the use of such hydrogen sulfide salts is toxic to breathe and although normally the amount of hydrogen sulfide

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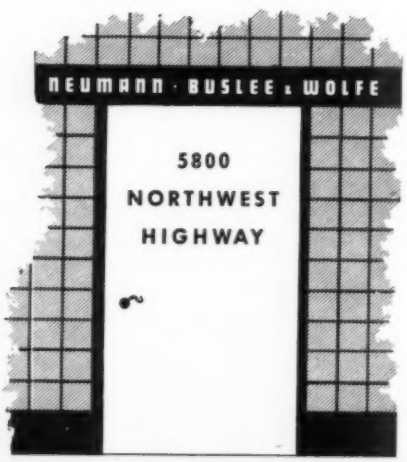

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produced thereby is not dangerous, when in a confined booth or room such as a beauty shop cubicle often used in hair waving establishments, the concentration of the gas may become so high as to seriously affect both operator and patron, unless expensive ventilating equipment is installed and maintained to remove this gas.

Thus, it will be seen that, while these sulfides are satisfactory in use in waving solutions from the point of view of performance or results in the finished permanent wave, they are wholly unsatisfactory because of the combined effect of toxicity, nauseating odor, and metallic coating effect.

More specifically, one of the best waving agents known for use when carrying out a permanent change of form or shape of the hair is ammonium hydrogen sulfide; but, despite its relatively greater waving power, the use thereof is limited by liberation of hydrogen sulfide gas, together with ammonia gas. These evolved gases make this compound very objectionable and perhaps dangerous, unles special precautions to remove the vapors, for instance, by suction ventilators, are taken.

Another objection to use of ammonium hydrogen sulfide and other sulfides is that the hair tends to retain the sulfide in spite of repeated rinsings even when using a chemical setting solution. The result is a malodor to the hair, particularly on each re-wetting. More important, however, is the fact that this retention by the hair of the sulfide affords a continuous "relaxing" effect on the permanent wave with the result that the wave becomes less tight with each re-wetting.

Objects of Invention

It is the general objective of this invention to provide an agent for use in altering the permanent form or shape of hair which will be similar in its effect to that of the sulfides referred to above and yet will not possess the great disadvantages mentioned.

It is a further object of this invention to provide a lotion for the permanent waving of hair containing an entirely novel ingredient as the waving agent which will give the solution a wide range of adaptability for permanent waving of any type or texture of hair.

It is a further object of this invention to provide a non-odorous, non-toxic hair waving solution adapted to more rapidly and more successfully place hair in a condition to be altered in form or shape permanently, irrespective of whether cooling subsequent to heating or chemical means is used after applying the waving solution in order to fix the hair in its new configuration.

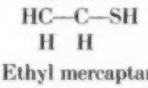
It is a further object of this invention to provide a waving solution suitable for that type of permanent waving of hair which utilizes a chemical action for the fixing of the hair in its wound form, such waving solution containing a waving agent as powerful, rapid and satisfactory as ammonium hydrogen sulfide, but free from the limitations of ammonium hydrogen sulfide, particularly the bad odor and toxicity.

It is a further object of this invention to provide a waving solution powerful enough to wave hair without the need of added heat and which can be neutralized or completely removed by water alone; or, in other words, the wave can be fixed in the hair by washing out the waving agent with water alone.

By this invention there is provided an agent for use in the permanent reforming of hair which is fast in action, satisfactory in use for all types of hair and yet is free from objectionable odors or toxicity or the like.

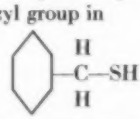
Waving Agents

I have discovered that I can obtain these objects by providing as a waving agent a mercaptan, or a mixture of mercaptans, whether the fixing of the new form for the hair be by cooling subsequent to heating, or by using chemical rinses or by any other method, and, further, that an effective waving solution can be obtained by proper formulation including a mercaptan in water. The mercaptans are represented by the formula R—SH where R is an organic group such as the ethyl group in



Ethyl mercaptan

or the benzyl group in



Benzyl mercaptan

Such simple mercaptans will function adequately as waving agents, but they still have the disadvantage of sulfides, such as ammonium hydrogen sulfide as far as bad odor is concerned.

I have discovered that bad odor, and other disadvantages can be entirely obviated by having the molecule contain other groups which are carefully selected, as hereinafter set forth, to give the optimum desired results. For instance, the mercaptan molecule may contain polar groups, which in turn may be either acidic or alkaline groups. Examples of compounds and groups of compounds belonging under the general heading of polar acidic substituted mercaptans are: mercaptans containing the carboxylic groups, as, for example, the simple mercapto-alkanoic acid, mercapto-acetic acid (thioglycollic), Mercaptans containing sulfonic groups, as, for example, mercapto-ethyl sulfonic. Other acidic groups are nitro, chloro, or other halogenated groups, sulfonic, sulfate. It is to be noted that any homologues could be used and that cyclic, or benzenoid groups may be included—also derivatives of these compounds, such as salts, esters, amides, and the like. Examples of polar alkaline substituted mercaptans are: Mercaptan containing amino groups, which may be primary, as, for example, β-amino ethyl mercaptan, or, secondary, as, for example, β-mercapto-ethyl-methylamine or tertiary, as, for example, β-mercapto ethyl di-methyl amine. Other alkaline groups are imines and nitrogen heterocyclic compounds. It is to be noted that any homologues could be used and that cyclic, or benzenoid groups may be included—also derivatives of these compounds, such as salts, nitrogen derivatives, amides, and the like.

On the other hand, the molecule may contain non-polar groups. An example of a mercaptan containing the non-polar hydroxyl group is the simple mercapto-carbionol compound, β-mercapto-ethyl alcohol. An example of mercaptans containing non-polar aldehyde groups is the simple mercapto-carbinol, mercapto acetaldehyde. An example of mercaptan containing non-polar ketone groups is the simple mercapto-carbonyl, mercapto-di-methyl ketone. An example of mercaptan containing ester groups is the simple mercapto-ester, mercapto ethyl acetate. As an example of mercaptan containing ether groups is the simple mercapto-ether, β-mercapto di-ethyl ether. Homologues, cyclic or benzenoid and other derivatives of these compounds could be used.

Many other compounds could be listed such as the mercaptan containing more than one substituted group such as, for example, 3 amino-2 hydroxy propyl mercaptan.

Many other mercaptan compounds could be included under the groups above and the following lists are given to show the wide variety of mercaptans which may be used and to show that mercaptans having poly mercapto- and

(Continued on page 120)

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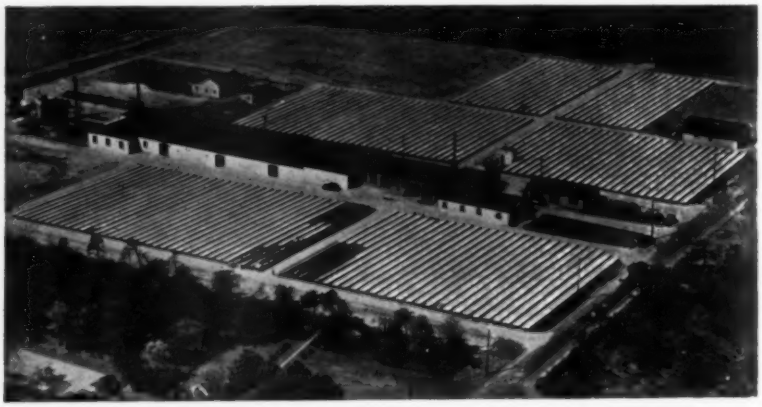

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Aspidospermine	Hematropine	Quassin
Atropine	Hydrastine	Rutin
Berberine	Hydrastinine	Sanguinarine
Brucine	Hyoscine	Scammony Resin
Cantharidin	Hyoscyamine	Solid Extracts
Colchicine	Jalap Resin	Sparteine
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Digitonin	Ouabain	Strychnine
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Readers' Questions

LINIMENTS: Can you give me a good formula for a liniment? Do you believe that the white liniment is as good as the regular type? Mechanicsburg.

Frankly, I do not know whether a difference exists between a white liniment and the clear, regular type, but I do understand that a white cream product has a certain amount of pharmaceutical elegance that is attractive in itself. However, I will give you a typical formula for both types. For example, the "Pharmaceutical Recipe Book" offers the following analgesic liniment:

Menthol	**45 Gm.**
Olive oil or peanut oil	**300 cc.**
Oil of camphor	**250 cc.**
Methyl salicylate, a sufficient quantity to make	**1000 cc.**

Mix the oil of camphor and 200 cc. of methyl salicylate and in this dissolve the menthol. Add the olive oil and sufficient methyl salicylate to make the product measure 1000 cc.

A preparation of the cream type, a so-called white liniment, can be made from:

Ammonium carbonate	**30 Gm.**
Castile soap	**24 Gm.**
Camphor	**30 Gm.**
Alcohol	**30 cc.**
Water	**720 cc.**
Oil of turpentine	**sufficient**

Heat about two-thirds of the water and in it dissolve the castile soap. Separately dissolve the carbonate in the rest of the water, and mix the two solutions. Dissolve the camphor in the alcohol and add to the mixture. Then gradually add, with constant shaking, a quantity of oil of turpentine, sufficient to make a creamy emulsion.

PERFUME FOR ANTI-PERSPIRANT: We have been experimenting with formulas for a deodorant spray and we have settled on one containing aluminum sulphate, urea and water. While the finished product is satisfactory, we have not been very successful in incorporating the perfume oil. After standing for a few days the odor becomes very faint. We are wondering if you have any suggestions as to ways of remedying this condition. New Orleans.

Several factors may enter the picture. One is a question of compatibility. Another is the use of an oil in an aqueous solution. I would, therefore, suggest that you obtain a properly solubilized perfume mixture. Products of this sort are available from most of the perfume houses that advertise in our magazine.

ADRENALIN CREAM: I believe it was in the latter part of 1949 that I read in your publication an article or report of a London (England) clinic that was using adrenalin in a vanishing cream base. I cannot find my copy of this issue. Would you please be so kind as to mail me a copy of the issue which carried this item? St. Louis.

A check of our index fails to show that we published any report on this item. However, a comprehensive report on this subject was published in the *Lancet*, Vol. 2, page 395, 1950. A photostat or copy of this report should be available from any medical school in the St. Louis district. The publication is a leading British medical journal. Incidentally, this adrenalin cream has been the subject of considerable investigation in England and not all the reports are favorable.

ABSORPTION BASES: What is meant by a cholesterin ointment base? We are anxious to do some laboratory work with such a base and are desirous to obtain formulation for such a product. Los Angeles.

These are often referred to as chloesterol absorption bases or as just absorption bases or hydrophylic bases. Originally, these so-called absorption bases, so named because of their ability to take up considerable quantities of water, consisted of mixtures of lanolin with petrolatum or other paraffin products. However, most of the modern absorption bases make use of certain purified fractions of wool fat, such as cholesterol, oxycholesterol and their esters and other purified lanolin fractions. When combined with petrolatum and related compounds, these materials yield odorless, stable ointment bases that are compatible with most drugs and capable of emulsifying considerable quantities of water or aqueous medications.

Quite a number of formulas for making such bases are available in the technical literature and finished materials are provided by a number of manufacturers. A typical absorption base is provided by the hydrophilic petrolatum of the U.S.P. as follows:

Cholesterol	**30 Gm.**
Stearyl alcohol	**30 "**
White wax	**80 "**
White petrolatum	**860 "**
to make	**1000 "**

Melt the stearyl alcohol, white wax, and white petrolatum together on a water bath, then add the cholesterol, and stir until it completely dissolves. Remove from the water bath, and stir until the mixture congeals.

Perfumer's Shelf

Synthetic Musk from Corn Smut

In a report presented at the XIIth International Congress of Pure and applied Chemistry, held in New York during September 1951, R. U. Lemieux described studies on synthetic musks from a metabolic product of corn smut in artificial cultures. He noted that the corn smut, *Ustilago zeae*, in aerated submerged cultures produces a mixture of glucolipides designated as the ustilagic acids, in yields of 10 to 15 Gm. per liter of fermentation mixture, which exhibit strong in vitro antibiotic properties. The glucolipides have not been separated. However, it was shown that the mixture probably consists of approximately 70 per cent monoacetyl-mono-*L*-β-hydroxy-*n*-caproyl, 25 per cent monoacetyl-mono-*L*-β-hydroxy-*n*-caprylyl, and 5 per cent monoacetyl-mono-n-caproyl derivatives of an amorphous substance named glucoustilic acid which possesses the composition expected for a di-*D*-glucosyl-dihydroxy-hexadecanoic acid.

It is now established that glucoustilic acid is a mixture. Fractional crystallization of the esters formed on the methanolysis of the glucoustilic acids to remove the glucose residues yielded a pure methyl ester, melting point 85.5-6°C., of a dihydroxy C_{16}-acid, melting point 112-3°C., designated ustilic acid A. Experiments established the structure of ustilic acid A as *levo*-15, 16-dihydroxy-palmitic acid. The 15,16-dihydroxypalmitic acid was shown to be the major component of the ustilic acid mixture as follows. The mixture of ustilic acids was converted by chromic acid oxidation, followed by esterification and fractional distillation to the dimethyl ester of pentadecanedioic acid in 55 per cent yield. The latter substance is used in the preparation of cyclopentadecanone, the synthetic perfume base known as "exaltone." Oxidation by periodate of the sodium salts of the mixture of ustilic acids and hydrogenation of the C-formyl acids formed gave a near quantitative yield of hydroxy acids which, on lactonization at high dilution, afforded a 44 per cent yield of the lactone of ω-hydroxypentadecanoic acid, the natural musk referred to as "exaltolide."

Oil from Henna Plant Flowers

Steam distillation of camphire or henna plant flowers, *Lawsonia inermis or L. alba*, gave M. B. Antia and R. Kaushal (*Current Sci.* India 19:284, 1950) 0.02 per cent of a dark brown essential oil that congealed on standing and had a very fragrant odor when diluted. Fractionation gave a pale yellow liquid that darkened on standing. It had the following properties:

Specific gravity	**0.9462**
Specific rotation	**1.5010**

Comparison of its physical properties with those of *beta*-ionone indicates that *beta*-ionone is the chief component of the oil. The oil also contained a nitrogen compound and a resin.

Salicylates in Perfumery

In comparison with other groups of materials used in perfume compounding, says C. Morel (*Soap, Perf. & Cosmetics* 24:787, 1951), the number of useful salicylates is rather small. In discussing the salicyl esters, as given in the following table, he notes that two facts stand out. First is the observation that the odor variation follows from a pronounced wintergreen to a strong orchid, abruptly diminishing in intensity, with increase in molecular weight, to the odorless crystallines. Second, as is seen in the data regarding the first three aromatic alcohols, there is a tendency for these esters to conform to a fairly regular odor pattern but, additional and desirable perfumery qualities follow the cinnamic unsaturation and anisic ether-ester background.

Characteristics of the Salicylates

Ester	Mol. Wt.	R.	B.P.	S.G.	R.I.	Basic odor
Methyl salicylate	152	9.9/90.1	223	1.190	1.5370	Strong wintergreen
Methyl methyl-salicylate	166	9.0/91.0	235	1.155	1.5340	Niobe-wintergreen
Ethyl salicylate	166	17.5/82.5	233	1.140	1.5235	Mild wintergreen
Allyl salicylate	178	23.0/77.0	247	1.100	—	Fruity wintergreen
Propyl salicylate	180	23.9/76.1	256	1.100	1.5150	Vinous clover
Butyl salicylate	194	29.4/70.6	268	1.078	1.5110	Clover-wintergreen
Amyl salicylate	208	34.1/65.9	280	1.055	1.5075	Orchid-clover
Phenyl salicylate	214	36.0/64.0	220	xtls.	—	Aromatic wintergreen
Hexyl salicylate	222	38.2/61.8	290	1.035	1.5065	Metallic astringent
Benzyl salicylate	228	40.0/60.0	368	1.180	1.5810	Faint sweet aromatic
Heptyl salicylate	236	41.9/57.1	300	1.025	1.5100	Metallic
Phenylethyl salicylate	242	43.2/56.8	370	xtls.	—	Mild rose-hyacinth
Salicyl Salicylate	244	44.0/56.0	—	xtls.	—	Odorless
Cinnamyl salicylate	254	46.2/53.8	—	xtls.	—	Faintly balsamic
B-Naphthyl salicylate	264	48.1/51.9	—	xtls.	—	Odorless
Bornyl salicylate	274	50.0/50.0	360	1.170	—	Odorless
Geranyl salicylate	274	50.0/50.0	—	—	—	Practically odorless
Linalyl salicylate	274	50.0/50.0	—	—	—	Practically odorless
Menthyl salicylate	276	49.8/50.2	—	1.052	1.5200	Odorless

Note: R = percentage ratio of alcoholic to acidic radical.
B.P. = °C. at normal pressure
S.G. = Average at 15.5°/15.5°C
R.I. = Constant for the Na D line at 20°C.

Indian Standards for Essential Oils

According to a report in the *Perfumery and Essential Oil Record* (42:255, 1951,) the Indian Standards Institution has put forward standards for several essential oils in order to maintain a high quality for these products of the East. Thus, specifications are provided for the following essential oils: eucalyptus, lemongrass, sandalwood and citronella. According to these draft specifications, eucalyptus oil is defined as oil of eucalyptus produced in India from the species, *Eucalyptus globulus* Labill, cultivated widely in Nilgiris, South India and is obtained by the steam or hydro distillation of leaves of *Eucalyptus globulus* Labill, or from other species of Eucalyptus. It is soluble in an equal volume of 80 per cent alcohol and passes limit tests for aldehydes and phellandrene. The requirements for the oil are as follows:

Color and appearance	**Colorless or pale yellow liquid**
Odor and taste	**Characteristic aromatic camphoraceous odor and pungent spicy taste followed by a sensation of cold.**
Specific gravity at 30°/30°C	**0.900 to 0.920**
Optical rotation at 20°C	**−5° to + 10°C**
Refractive index at 30°C	**1.4530 to 1.4660**
Cineole content, per cent., by weight *maximum*	**55**

The specification on lemongrass states that the oil is produced in the United States of Travencore and Cochin by the distillation of grass (*Cymbopogon flexuosus*, Stapf). The Indian oil, which has come to be known as East Indian lemongrass oil or Cochin lemongrass oil, must be soluble in two to three

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volumes of 70 per cent alcohol. The oil must meet the following requirements:

Color and appearance	Reddish yellow to brown moble liquid
Odor	Lemon-like
Specific gravity, 30°/30°C	0.895 to 0.910
Optical rotation	-3° to + 1°
Refractive index, 30°C	1.4830 to 1.4890
Citral content, per cent., by volume, *maximum*	75

The standards for sandalwood oil are those for the British Pharmacopoeia and the oil is described as that obtained by steam or hydro distillation of the heartwood of *Santalum album*, Linn., The requirements for sandalwood oil are given below:

Color	Pale yellow or nearly colorless. Characteristic, faint but persistent odor and an unpleasant nauseating taste.
Specific gravity at 30°/30°C	0.9620 to 0.9750
Optical rotation	-15° to -20°C
Refractive index at 30°C	1.4950 to 1.5060
Esters as santalyl acetate ($C_{17}H_{26}O_2$) per cent, by weight, *minimum*	2
Free alcohols calulated as santalol, per cent., by weight, *minimum*	90

In the specification for citronella oil, both the Ceylon and the Java varieties are described and these are given as follows:

Citronella Oil—Ceylon Type shall be obtained by steam distillation of dried wild grass, botanically known as *Cymbopogon Nardus*, Rendle, and known in Ceylon as the *lena batu* variety.

Citronella Oil—Java Type shall be obtained by steam distillation of the freshly cut or partially dried, cultivated grasses, botanically known as *Cymbopogon Nardus* (Rendle) or *Andropogon Nardus* (L) and known in Java as the *maha pengiri* variety. A solubility test is described as follows: Citronella oil of Ceylon type or Java type shall be clearly soluble in one to two volumes of 80 per cent ethyl alcohol (by volume). On addition of up to 10 volumes of the alcohol, the solution may remain clear or it may become slightly opalescent, but no oil shall separate from the solution after allowing it to stand overnight.

The requirements for these oils are as follows:

Color	Ceylon Yellow to yellowish brown	Java Light yellow to tan color
Specific gravity at 30°/30°C	0.8870 to 0.8990	0.8720 to 0.8890
Optical rotation	-9° to -18°	-0°30′ to -6°
Refractive index at 30°C	1.4740 to 1.4810	1.4610 to 1.4700
Total alcohols (as geraniol) per cent., by weight	55 to 65	85 to 97
Aldehyde content (as citronellal) per cent., by weight	7 to 15	

Progress in Spice Extraction

According to M. Rector (*Canadian Chem. & Process Ind.* 35:114, 1951) considerable progress has been achieved in processing spices and related products in recent years, limited in most cases to grinding and extraction. Yet this progress is not yet generally utilized, and spice extraction methods have in many cases become stabilized or rule-of-thumb for far too long. Often extracted spice flavors are incomplete and do not include all the flavor factors of the whole or ground spice. New laboratory methods of evaluating flavors and new extraction techniques have been adopted and more improvements are to be expected. Still greater improvements could be secured by better knowledge and discrimination on the part of users—of the domestic category rather than large scale food manufacturers. By the former, spice extractions are often improperly used with consequent unequal flavor distribution and loss. Among some of the latter, the smaller of the manufacturers of processed foods, such as meat-packers, sausage makers, canners, and the like there is room for improvement and application of the latest research results. Suitable carriers, emulsifiers, and such must be adopted, and here there is wide scope for further research.

Perfume Ratings

The reliability of women's ratings of perfume and the factors affecting such ratings were discussed by B. M. Wenzel at the Dec. 5, 1951 meeting of the Scientific Section of the Toilet Goods Association. In her experiments, the question of a woman's tendency to be consistent in judging pleasantness of a perfume was investigated. Twelve different perfumes, an expensive and an inexpensive representative of six different types, were used as stimuli. Subjects were instructed to judge each one as pleasant or unpleasant according to specific criteria. Each subject did her judging individually and repeated it in eleven different ways after the first one. The perfumes were presented in a different order each time. In addition to varying the type and cost of the perfumes, the subjects were selected to form three groups on the basis of frequency of use of perfume, toilet water, and cologne.

Consideration of the 2,016 responses obtained from 14 subjects showed that the subjects tended to be consistent in finding a perfume pleasant or unpleasant. The number of pleasant responses varied with the different types used, with the cost level, and with the subject's history of perfume use.

Considerable discussion followed the delivery of this report.

Determination of Safrole in Sassafras Oil

In discussing the cryoscopic method for determining safrole in the essential oil of sassafras, A. H. de Souza (*Rev. Brasil. farm.* 31:97, through *Chem. Abstr.* 45:8204, 1951) states that this method requires seeding of the cooled oil with crystals of safrole. Crystals for seeding may be obtained by fractional distillation of the oil, separation of the fraction boiling at 220 to 235°C. and cooling this fraction to—150°C. This method requires less than 20 minutes and its adoption is recommended as official for the determination of safrole in sassafras oil.

Phenylpropyl Esters in Perfumery

In another of his discussions on the essentials of perfume compounding, appearing in *Soap, Perfumery and Cosmetics* (24:581, 1951), C. Morel points out that the phenylpropyl group of perfumery esters is not a large unit, being limited to less than a dozen phenylpropyl esters, two alkyl phenylpropionates, and a single mention of hydrotropyl acetate. However, says Morel, by way of compensation for their lack of numbers, compounds of this series like hydrocinnamic and hydratropic aldehydes, do confer upon the perfumer some extremely valuable, stable and tenacious odors of intensely floral and folial character, in the di-methyl and di-phenylethyl acetals, as well as some particularly interesting and comparatively new odor-types from some of the higher alkyls. Considerable information on the characteristies of thse compounds is provided in the following table:

Ester	Mol. Wt.	R*.	Boiling Point °C	Specific Gravity	Refractive Index	Basic Odor
Phenylpropyl formate	164	72.5/27.5	280	1.040	1.5040	Honey cinnamon hyacinth
Methyl phenyl-propionate	164	9.2/90.8	275	1.040	1.5030	Fruity jasmin-rose
Phenylpropyl acetate	178	66.8/33.2	245	1.025	1.4975	Hyacinth-reseda
Ethyl phenyl-propionate	178	16.3/83.7	240	1.015	1.4970	Hyacinth-honey
Phenylpropyl propionate	192	62.0/38.0	265	1.010	1.5125	Honey-rose hyacinth
Phenylpropyl butyrate	206	57.4/42.3	282	1.000	1.4930	Apricot-jasmin
Phenylpropyl valeriante	220	54.0/46.0	284	1.000	—	Strawberry-raspberry
Phenylpropyl benzoate	240	49.5/50.5	338	1.086	—	Hyacinth-basil
Phenylpropyl phenylacetate	254	46.9/53.1	340	1.077	—	Styrax hyacinth-rose
Phenylpropyl cinnamate	266	44.3/53.7	370	1.070	1.5860	Sweet fruity-balsamic
Phenylpropyl caprinate	290	41.0/59.0	300	1.007	—	Banana-apricot

*R = percentage ratio of alcoholic to acidic radicals.

Advancing Therapy

Bacitracin in Dermatology

During an eight-month period, reports E. F. Finnerty, Jr. (*New England J. Med.* 245:14, 1951) a total of 83 patients, including 75 with superficial pyodermas; 4 cases of secondary infections associated with varicose and traumatic ulcers; 1 ischiorectal abscess; 1 case of recurrent boils; 1 ulcer of the buttock; and 1 secondary scalp infection associated with psoriasis, received topical therapy,—either with an ointment consisting of 500 units of bacitracin per Gm. of petrolatum or with wet dressings of a solution containing 500 units of bacitracin per cc.

Forty-six cases in the first group completely cleared in from three days to three weeks without recurrence; 22 additional cases showed marked improvement; 5 improved and 2 did not respond to treatment. The deep ischiorectal abscess, buttock ulcer, secondary infection (scalp) and recurrent boils healed uneventfully in from three weeks to three months. Secondary infections of old ulcers presented marked improvement in from four to seven days. Secondary infections associated with acne or psoriasis either cleared completely or showed marked improvement in from three to seven days. The response of hitherto strongly resistant pathogenic infections was impressive. Ninety per cent of the cases of infectious eczematoid dermatitis and contact dermatitis with secondary infections were industrial cases. Many of these cases had been treated previously at various industrial clinics without apparent benefit. The action of bacitracin in these cases was rapid and effective.

According to Finnerty the wide variety of infections presented by this entire group of cases indicates that the therapeutic value of bacitracin is applicable in topical therapy to all pyogenic skin disorders caused by the streptodermas and staphylodermas. In his opinion bacitracin is one of the most efficient bactericides that have been introduced into dermatologic practice. In treatment, it has materially reduced the time element (important in the industrial field). Moreover, since its allergic incidence is extremely low, the combination of a superior bactericide with a low sensitization index indicates that this compound is an excellent agent for the administration of tropical therapy.

Red Cell Suspensions

The immediate availability of blood in many blood banks throughout the country has led to the increased demand on these banks for blood. In order to meet this demand it is necessary that the two major components of whole blood, plasma and red cells, be used specifically. The indications for the proper use of red blood cell suspension have been outlined by D. W. Smith and J. Elliot (*J. A. M. A.* 147:736, 1951). In discussing the advantages of red blood cell suspensions, they note that larger doses of blood cells may be given in a single transfusion, resulting in a shortened period of hospitalization and decreased cost to the patient. Beds are thereby released to other needy patients, and convalescence, often prolonged because of anemia, can be more rapidly accomplished with large red blood cell transfusions. Cardiac patients in particular, because of their intolerance to measures which increase effective blood volume, may have anemia corrected more satisfactorily with blood cell suspensions than with whole blood. In all patients, transfusion reactions of the allergic type, which account for approximately one-half of all reactions seen at the blood bank, are greatly reduced. Overload reactions in cardiac and pediatric patients are exceedingly rare when red blood cell suspensions are used.

New Gel Treatment for Burns

A new method for the treatment of burns, based on the use of a partially, hydrolyzed casein gel, is described by R. W. Curtis, J. H. Brewer and I. W. Rose, Jr. (*J. A. M. A.* 147:741, 1951). With casein as the main ingredient of the preparation, sodium lactate is added as a plasticizer to make the film pliable on drying. Sodium lauryl sulfate is added to lower the surface tension of the gel; it makes for easier application, and it acts as a bacteriostatic agent. These ingredients are mixed, dissolved and sterilized by autoclaving. In this process the casein is converted to sodium caseinate and undergoes some hydrolysis. The solution after sterilizing is approximately neutral. From a physical point of view the material is a gel of about the consistency of heavy molasses and may be easily spread with a wooden spatula.

The gel is applied to the burned area and is then covered with gauze impregnated with zinc acetate. The gel is set, forming a semipermeable membrane which prevents the superficial protein loss, and, by the support given the damaged capillary bed, diminishes the protein loss into the burned area, thus minimizing local cellular damage and shock. There is relief of pain, a minimum of infection, and a splinting of the injured part. This method of treatment permits early grafting by allowing the body's own enzymatic and phagocytic systems to debride the area of deep burn.

Sulfhydryl Compounds as Antihypertensives

During an investigation of the effects on blood pressure of various compounds, says H. A. Schroeder (*Science* 114:441, 1951), it was noticed that certain substances containing sulfhydryl groups appeared to exert a specific depression upon the hypertension of rats. In further studies, it was found that the substances which seemed to exert this specific action in rats were sodium thioglycolate, *beta*-mercaptopropionic acid, cysteine, 2, 3-dimercaptopropanol, mercaptosuccinic acid, and mercaptopyruvic acid.

Lowering of blood pressure in chronic renal hypertensive dogs was obtained by both 2, 3-dimercaptopropropanol given intramuscularly and *beta*-mercaptopropionic acid given intravenously. In hypertensive patients, 2, 3-dimercaptopropanol given in doses of 100 to 150 mg. intramuscularly also lowered blood pressure temporarily (for 1.5 to 4 hours), although the usual response of normal human subjects is elevation of blood pressure. Repeated doses apparently caused a depression of blood

pressure for several days in a few subjects.

From these experiments, concludes Schroeder, it appears that the administration of certain sulfhydryl compounds of simple molecular structure can cause temporary lowering of blood pressure in experimental and human hypertension without affecting normal pressure similarly. He feels that the application of these findings to the control of human hypertension deserves further study.

Chaulmoogra Oil in Tuberculosis

According to a report from Paris, appearing in the *Journal of the American Medical Association* (147:682, 1951), Minet, Warenbourg, and associates presented a study on the action of chaulmoogra oil in 20 cases of cavernous tuberculosis, in which previous treatment with streptomycin and para-aminosalicylic acid, given alone or in combination, did not prevent progression of the disease. They noted a constant action on general condition and appetite. The radiologic picture was favorably modified in 70 per cent of cases. Chaulmoogra oil proved to be without toxicity.

Minet, Linquette, and Desruelles also reported their results with this drug in 20 cases, among which were two of severe bilateral disease in which antibiotic treatment alone had failed. In four cases improvement of the radiologic image and the general condition was spectacular. In nine cases in which antibiotics and chaumoogra oil were used from the start, results were very favorable, and in seven cases results were poor.

Wheat Germ Oil in Neuromuscular Disorders

In the studies reported by R. Rabinovitch, W. C. Gibson and D. McEachern (*J. Neurol., Neurosurg. & Psych.* 14:95, 1951) 151 patients with neuromuscular disorders were investigated and followed for up to 12 years. Of these patients, 107 were treated with either wheat germ oil or wheat germ oil concentrate, sometimes with the addition of tocopherols. Thirteen showed definite improvement. These include two cases of atypical muscular atrophy. In five (three children and two adults) out of 25 patients with progressive muscular dystrophy, symptoms were arrested, and moderate to marked improvement occurred. Three out of five patients with menopausal muscular dystrophy showed remarkable improvement. All three cases of dermatomyositis responded favorably to wheat germ oil therapy. The investigators conclude that certain neuromuscular disorders respond to wheat germ oil therapy and that these conditions are the ones that are also apt to be improved by adrenal corticoids.

TEM for Neoplastic Diseases

The discovery that certain nitrogen mustard compounds have ameliorative effects in Hodgkin's disease and related lymphomas has led to the synthesis and biologic testing of a wide spectrum of related chemicals for their tumor-inhibiting properties. The investigations thus far have not uncovered agents which by clinical standards are clearly superior to methyl-*bis* (B-chloroethyl) amine (HN2) or methyl-*tris* (B-chloroethyl) amine (HN3). These powerful vesicants must be given directly into the blood stream, and they produce severe nausea and vomiting as well as occasional phlebothrombosis.

However, as remarked by M. B. Shimkin and his colleagues (*California Med.* 75:26, 1951) a number of compounds related to the nitrogen mustards have been devised recently in England and the United States which appear to have effects similar to the nitrogen mustards but which have less emetic reaction and are effective when administered by the oral route. Among these compounds is trisethylene-imino-*s*-triazine. This compound is more familiarly known as triethylene melamine, or more simply as TEM.

Following animal studies, Shimkin and his associates tried TEM on 32 patients with neoplastic disease, including nine patients with Hodgkin's disease and five with lymphosarcoma and lymphatic leukemia. The therapeutic and toxic effects were similar to those observed with nitrogen mustard (*HN2*). Satisfactory remissions of up to three months were observed in Hodgkin's disease and lymphosarcoma following parenteral administration of TEM. It is the workers' impression that the remissions obtained with TEM were not as complete and did not last as long as those obtained with *HM2*. TEM is effective by the oral route as well as parenterally, and produces much less emetic reaction than *HN2*. On the other hand, the chemotherapeutic range is narrower than that of *HN2*. Patients who do not respond to *HN2* show no response to TEM.

In the opinion of these workers, TEM is a drug of some clinical usefulness in the same conditions and with the same general limitations and toxic effects as HN2. The ease of administration of TEM increases its hazards, and close clinical and hematologic observations are essential on patients receiving the agent.

Orally Administered Cortisone

Comparative studies of the physiologic and clinical effects of orally and intramuscularly administered cortisone have been carried out by G. W. Thorn and his colleagues (*New England J. Med.* 245:549, 1951). They found that, in most cases the clinical effectiveness of the oral ingestion of cortisone at six-hour intervals appears to be equal to that of intramuscular injection once a day. The total daily dosage required for the control of a variety of diseases appears to be of the same order of magnitude. Its rapidity of action makes oral administration the method of choice in acute diseases requiring immediate high levels of circulating adrenal hormone.

Aureomycin Ointment in Dermatology

Noting that a very high percentage of cases met with in dermatologic clinics are pyogenic infections, B. Solomons (*Brit. Med. J.* 2:525, 1951) decided to try aureomycin in the treatment of some skin diseases. Using an ointment consisting of 3 per cent aureomycin hydrochloride in a petrolatum and wool fat base, the following groups were treated: sycosis barbae, 22 cases; folliculitis of other areas, 12; impetigo, 57; miscellaneous group, 53.

As a result of his observations in these cases, Solomons concluded that there is no doubt that aureomycin ointment is a powerful addition to the therapy of pyogenic skin conditions. Its local sensitizing powers are low, contact dermatitis being produced in only two cases of this series, and they already had a history of allergy. The most striking performance was the rapidity with which cases, and especially the chronic ones, of sycosis barbae resolved. The temperamental nature of this condition is well known, and, although it may be said that the follow-up periods have not been long enough to pronounce a cure, the patients unanimously acclaimed the treatment as the best they had ever used. Its efficacy in other pyogenic affections is equal to penicillin. Its great advantage over penicillin cream or ointment lies in the absence of untoward reactions. In the miscellaneous group it was most effective in acne necrotica, but, as with previous forms of local treatment, relapse soon occurred.

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Federal Fair Trade Bills

(*Continued from page 35*)

trade and commerce against unlawful restraints and monopolies,' approved July 2, 1890.

"BE IT ENACTED by the Senate and House of Representatives of the United States of America in Congress assembled, That Section 1 of the Act entitled 'An Act to protect trade and commerce against unlawful restraints and monopolies,' approved July 2, 1890, be amended to read as follows:

"SECTION 1(a) Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal. Every person who shall make any such contract or engage in any such combination or conspiracy shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding $5,000, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

"(b) Nothing contained in this Act shall render illegal, contracts or agreements prescribing stipulated or minimum prices for the resale of a commodity which bears, or the label or container of which bears, the trade-mark, brand, or name of the producer or distributor of such commodity and which is in free and open competition with commodities of the same general class produced or distributed by others, when contracts or agreements of that description are lawful under any statute, law, or public policy now or hereafter in effect in any State, Territory, or the District of Columbia in which such resale is to be made, or to which the commodity is to be transported for such resale.

"(c) Nothing contained in this Act shall render illegal the enforcement of any right of action created by any statute, law, or public policy now or hereafter in effect in any State, Territory, or the District of Columbia, which declares that wilfully and knowingly advertising, offering for sale, or selling any commodity at less than the price stipulated in such contracts or agreements, whether the person so advertising, offering for sale, or selling is or is not a party to such contract or agreement, is unfair competition and is actionable at the suit of any person damaged thereby.

"(d) Whenever by contracts or agreements described in subsection (b) a uniform stipulated or minimum resale price is established for a commodity throughout all states, territories, or the District of Columbia, where such contracts or agreements are lawful, it shall be an act of unfair competition, actionable at the suit of any person damaged thereby, to wilfully and knowingly, in interstate commerce, advertise, offer for sale, or sell such commodity in any such State, Territory, or the District of Columbia, where such contracts are lawful, at less than the price so established uniformly in all such contracts or agreements, whether the person so advertising, offering for sale, or selling is or is not a party to any such contract or agreement.

"(e) Neither the making of such contracts or agree-

ments as described in subsection (b) nor the enforcement of any right of action as described in subsection (c) and (d) shall be an unfair method of competition under Section 5, as amended and supplemented, of the Act entitled, 'An Act to Create a Federal Trade Commission, to define its power and duties, and for other purposes,' approved September 26, 1914.

"(f) Nothing in this Act contained shall make lawful any contract or agreement, providing for the establishment or maintenance of stipulated or minimum resale prices on any commodity herein involved, between manufacturers, or between producers, or between wholesalers, or between brokers, or between factors, or between retailers, or between persons, firms, or corporations in competition with each other."

Cosmetic Executives' Opinion Poll

(*Continued from page 31*)

This conclusion so predominantly favoring the better position of the drug store may be interpreted in several ways. In the first place the large majority of the executives answering this panel are men who direct companies practicing some degree of selected, limited distribution. The large majority of these men are not concerned with very many drug stores, i.e., at the maximum 10,000 stores and for most of them less than 6,000 stores. These selected drug stores are the ones who have specialized in their community in perfume and cosmetic selling, and have shown very superior management and sales ability far better than average stores. They have attained recognition from most of the products in the trade held to selected distribution and with many of these companies have established a strong position and a sound customer clientele.

Since most of these men here think of this type of drug store rather than the entire range of 55,000 stores, their opinion may also be influenced by the fact that there has been a noticeable tendency among some of the larger companies whose distribution has been held within narrow limits of three or four thousand stores to an expanded distribution which would add one or two or three thousand more stores, most of which would come from the ranks of the better than average retail salesmen in the retail drug field. This trend in some cases toward a broader distribution, has come about from the desperate feeling of some executives that the department store has become such a high cost operation that continual pressure on them for more sales help, added to the towering amount they are already paying, gives them a dim view of any opportunities for increasing profits in this part of the field.

These executives are not at all certain that variety stores will succeed in expanding the price range of the fragrance and cosmetics which they sell. In answer to the question *"Do you think variety stores will make a place for themselves in higher priced cosmetics, i.e., over 50 cents to $1.00?"* Sixty-four per cent replied "No." and 36 per cent "Yes."

(*Continued on page 116*)

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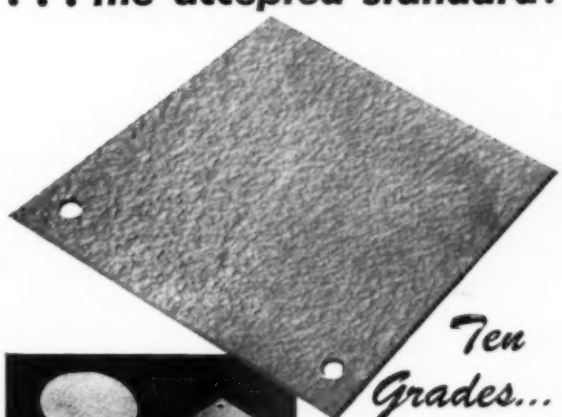
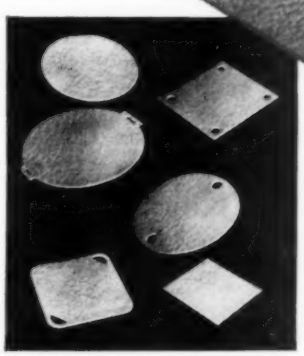


Ten Grades...



1, 2, 3 } Liquid Soaps, Drugs, Viscous Liquids, etc.

4, 5, 6 } Pharmaceuticals, Elixirs Oils, Sweet Wines, Antiseptics

7, 8, 9 } Chemicals, Food Liquids, Whiskey, Wines, Cider, Water, Germproof

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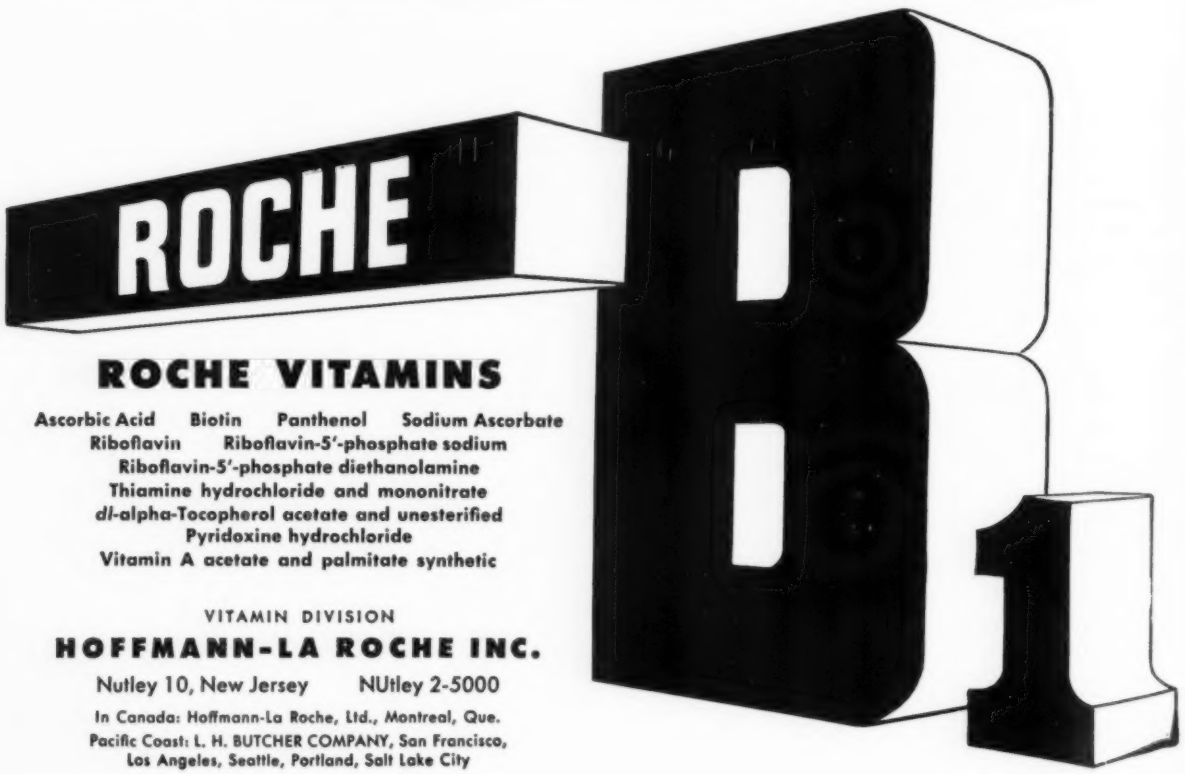

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Abreast Of The Markets

Markets Retain Quiet Tone as 1951 Ends; Botanicals Expected to Become Firmer; Little Change in Vanilla

As 1951 drew to a close there were quite a number of discrepancies in the market, with unexpected firmness in some items, and surprising inactivity in others. As far as the essential oils were concerned, much of the firm tone centered in the Spanish-origin oils, since that government has imposed floor prices on the items and has been declining export licenses to those shippers who persisted in selling below the regulated figures. Some of the oils so affected were spike lavender and rosemary. Clove oil, which had been on the firm side for many months, was quoted in several quarters last month, but the $6 figure was largely nominal, with most of the essential-oil houses not even bothering to stock it. The main oils from China, anise and cassia, reflected two entirely different conditions, in spite of the fact that neither oil has been coming out of this source since last year's embargo. Anise on the one hand is very plentiful on spot, mostly because the demand has fallen off to a large extent, and the consumers have resorted to anethole, a substitute material. Cassia, on the other hand, has become tight, and on the scarce side owing to a greater demand.

The orange oil picture had changed completely by December, with reports emanating from California to the effect that independent producers were stepping up their operations and cutting their prices. There was even said to be a small surplus of oil in California, which has proved to be a complete reversal of the conditions prevailing in the middle of the year. The mint oils were marking time, with an upturn in demand expected to occur in the early part of this year. The same degree of inactivity is also apparent in other domestic oils, including sassafras, wormseed, and wintergreen.

Commenting on the essential oil situation, S. B. Penick & Co. stated in its January Market Review, "Despite present unsettled world conditions, most manufacturers and consumers continue to carry moderate inventories although an appreciable amount of forward position buying has taken place in view of the present favorable price levels of most oils of the 1951 crop. Distillation of the present crop has been completed in most areas and since many of these oils are once-a-year propositions, shortages and higher price levels could result as the new year progresses."

In the botanical field, there were very few changes; business toward the end of the year was extremely quiet, with most houses tending to reduce their inventories, or keep them low, until the new year arrived. Houses were reporting increasing difficulty in importing many of the European and eastern botanicals because of lack of labor at the source, or because of disinterest on the part of the shipper, as regards the ceiling prices in the United States.

It was the opinion of some spokesmen in the trade that botanical prices would become firmer as 1952 progresses. Since consumers had for the most part been delaying replacements for as long as possible, both because they were apparently waiting to determine the outcome of the Korean conflict, and also because they were reducing their overextended inventories which had been built up just after the War began, it appeared in the early part of January that these users would soon have to re-enter the market. It was becoming more evident to them that prices would probably move only in one direction, and there would be no point in delaying their purchases any longer.

There were a number of developments on the chemical scene, highlighted by the first decrease in the price of synthetic and molasses alcohol in about a year. The price was reduced by 12 to 14c a gallon. The grain alcohol, however, remained the same.

Other developments in the chemical picture included the advance of tartrates reflecting increased costs of raw materials. Tartaric acid, cream of tartar, and Rochelle salts were all pushed up from 4c to 6c a pound. Stearates were reduced 4c a pound, magnesium stearate being quoted at 40c a pound for a 50 lb. case, and 39c for 2,000 lb. delivery. Zinc stearate USP was down to 39c for a 40 lb. case for the cosmetic grade, and was priced at 38c for a 2,000 lb. delivery.

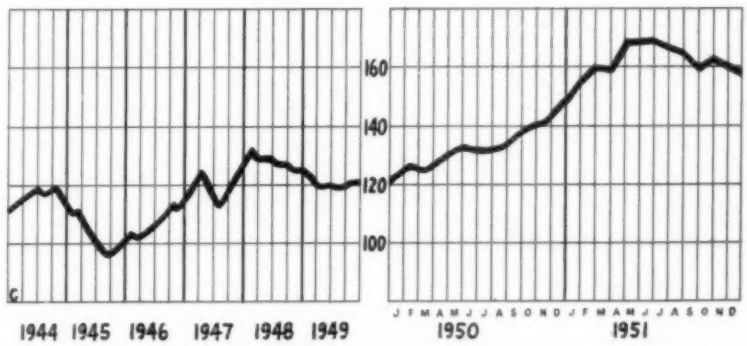
Vanilla Beans Remain Steady

While the new crop Mexican beans will not be available for several months, the buying of new crop green beans has been taking place, with some curers reported paying as much for green beans as dealers in this country are quoting on limited amounts of old-crop beans.

It is difficult to obtain a clear picture

(*Continued on page 113*)

25 Cosmetic Raw Materials—Unweighted Price Index. 1926 = 100.



The cosmetic raw materials index went down from 160.2 to 159.5. Alcohol and menthol were lower.

Prices quoted in this section were current on the first of this month.

Menthol Dips to New Low, Further Decline Anticipated; Alcohol Drops 14c, Quicksilver Down; Orange Oil Supply Much Improved

Priced at $9.20 during the first part of December, menthol declined steadily throughout the rest of the month, reaching $8.90 about the 20th, and was established at $8.65 at the turn of the New Year. This was the lowest price it had been in well over a year. Reports from the trade indicated it would probably drop a good deal more before any reversal occurs. While these were quotations for the Brazilian material, Chinese and Japanese menthol were somewhat higher, at $9.65 and $9.70, respectively.

There was a startling lack of interest in the item on the part of consumers, who were said to have at least one year's supply on hand. An upward price swing is not expected in the market until some of these stocks are consumed. Ordinarily, this time of the year is the period of greatest activity for this commodity.

General Reduction in Alcohol Price

Near the end of December individual alcohol producers quoted lower figures on alcohol, amounting to as much as 14c a gallon; by the first week of January, there was a general reduction all along the line. The lower price, however, was restricted to synthetic and molasses alcohol, and did not affect the grain alcohol. Denatured No. 1 special was reduced from 90c a gallon to 76c for tank cars, and the price extended up to 88c for smaller lots.

Because the supply of alcohol was plentiful, and because the production of synthetic alcohol has been increased, the resulting competitive atmosphere was the major factor in producing the widespread reduction in price. It is not known at the present time whether or not this lower price trend will have any effect on the Cuban molasses market, but some quarters have expressed the belief that it may force a reduction in price of that commodity too. This may be true, especially since it is known that there is a large carry-over of molasses from last year, and the new crop is of considerable size.

The alcohol tax unit of the Bureau of Internal Revenue, Treasury Department, released the following data early last month on the supply, production, withdrawals, and stocks of ethyl, completely denatured and specially denatured alcohol during the month of October, 1951, as compared with October, 1950:

Production

	Proof gallons	
	1951	1950
Ethyl	47,335,886	40,887,170
*Completely dentaured	174,900	219,682
*Specially denatured	23,547,875	19,053,167

Withdrawals

	Wine gallons	
	1951	1950
†Ethyl, tax paid	3,016,437	3,422,193
tax free	53,561,420	35,913,765
*Completely denatured	174,810	218,286
*Specially denatured	27,056,827	18,503,070

Stocks

	Gallons	
†Ethyl	103,927,180	36,597,489
*Completely denatured	58,799	33,530
*Specially denatured	6,585,969	1,979,149

*Wine gallons. †Proof gallons.

Glycerine Unchanged

Glycerine prices remained at ceiling levels last month, with demand for the refined grades slight. Up to the present time, supplies are more than adquate because its use by the military forces has not been stepped up yet. The prices may be reduced from the 55¼c level, if the demand continues to be moderate.

Quicksilver Continues Downward

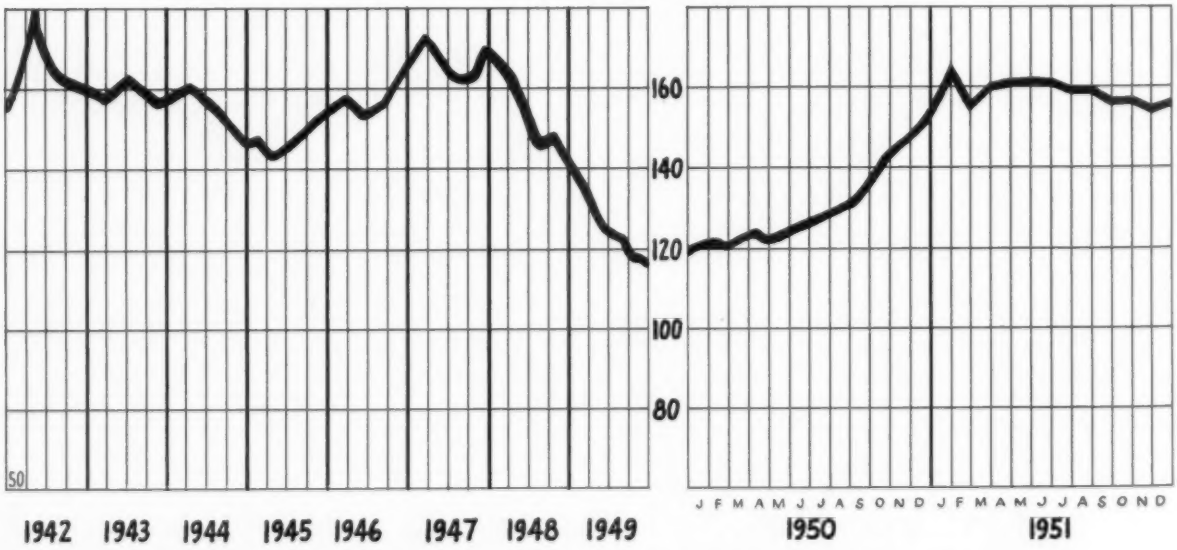
The price of quicksilver fell off to $212 a flask from the higher $218 figure last month, but failed to bring about an increase in buying. At the same time production of the metal in this country is suffering from difficulties of its own, caused by labor troubles.

Orange Oil Much Improved

By December the orange oil picture had almost completely reversed itself from that of six months before. There is more than enough California oil to go around, even to the point of producing a glut on the market. Florida oil, too, was in a much more favorable position, though not as plentiful as the western oil. Independent producers in California were beginning to become an important factor in the supply picture, with their prices being a good deal lower ($1.85) than those of the Exchange.

As for the imported oils, there was very little interest. The West Indian oil was up to $3.50 from the previous price of $2.75, and the Italian oil ranged from $3.25 to as high as $5.50.

50 Raw Materials—Weighted Price Index. 1926 = 100.



The price index of fifty commodities for December went up from 154.7 to 155.6.

December Price Changes

UP

Bois de Rose 50c
Cocoa Butter 2c
Cream of Tartar 5c
Orange Oil, West Indian 75c
Ouricury Wax 4c
Peppermint Oil, Redist. 25c
Rochelle Salt 4c
Saffron Valencia $2.50
Vanillin 25c

DOWN

Denatured No. 1 Special Alcohol 14c
Anise Oil 5c
Bergamot Oil $1.75
Calamus Oil $5
Camphor Oil, Sassafrassy 3c
Cantharides, Chinese 25c
Cascara Sagrada 3c
Citral 40c
Dill Oil 50c
Eucalyptus Oil 10c
Fennel Oil 15c
Geranium Oil, Bourbon $2
Ipecac Root 25c
Lavender Spike Oil 25c
Lemon Oil, Calif. 50c
Lemongrass Oil 50c
Magnesium Stearate 4c
Menthol, Natural 75c
Mercury $3
Orange Oil, Amer. Cold Pressed 10c
Pimento Leaf Oil 5c
Rue Oil 50c
Sage Oil, Dalmatian $1
Salicylic Acid 2c
Tartar Emetic 3c
Tartaric Acid 6c
Vetivert Oil, Reunion $5.50
Zinc Stearate 4c

Tartrates Higher

One large producer advanced prices on tartrates during the latter part of December, quoting tartaric acid at 6c a pound higher at 46c a pound in 250-drum lots, and at 45½c a pound for quantities of 10,000 pounds to a carload. Cream of tartar was up 5c a pound to 40c a pound, and Rochelle salts, up 4c a pound, to 38c a pound.

Vanillin and Ethyl Vanillin Reduced

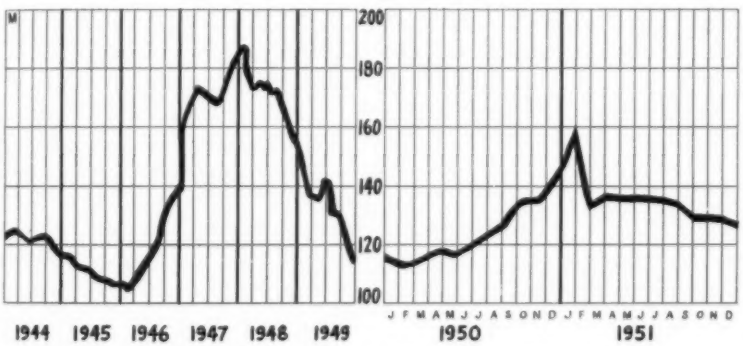
Guaiacol vanillin was cut 25c early this month to $3, and ethyl vanillin was reduced by as much as 55c to the selling price of $6.75. This was merely a return to the original prices which had prevailed prior to October of last year. At that time these items were advanced by these same amounts.

Vanilla Beans Steady

(*Continued from page 111*)

of the situation in either Madagascar or France, with some quarters suggesting poor flowering conditions at the source. This may have an adverse effect on the 1952 crop.

15 Medicinal Chemicals—Weighted Price Index. 1926 = 100.



The medicinal chemicals index fell slightly from 128.0 to 127.2. Alcohol, menthol, and mercury were lower; cream of tartar was higher.

15 Botanicals—Weighted Price Index. 1926 = 100.

The botanicals index went down a trifle from 239.3 to 238.8. Ipecac root was lower.

Spot business is much on the quiet side, in spite of the fact that few offerings have been coming through from Madagascar. It is believed, however, that when manufacturers' stocks have been depleted—which may take three or four months—a considerable amount of replacement buying will ensue.

The sluggish market in the United States has apparently resulted from activities at the origin, where shippers have been standing by their offerings, refusing to adjust their prices downward.

Report on Balsams

Balsam copaiba is expected to advance over the current price of $1.70 in the next few weeks, due to firmer shipping prices which are being quoted at the origin. Balsam Peru prices, on the other hand, fell during December, with new quotations being as low as from $1.70 to $2.40, according to seller. The previous level had been between $2.70 and $2.75. Balsam Tolu was also lower, ranging from $5.75 to $5.85.

Salicylic Acid up 2c

Several firms advanced their prices on salicylic acid by 2c to the range between 46c for a 100 lb. drum and 51c for a 25 lb. drum.

Waxes Become Firmer

Both ouricury and carnauba waxes have developed a stronger tone, with the former up to 88c a pound and carnauba, remaining at $1.28. The general belief is that carnauba will advance in the near future, paralleling the firm conditions prevalent in Brazil, partially due to purchases from countries in the sterling area.

Peppermint Oil on Quiet Side

Natural peppermint oil was 20c lower in December than during the previous month, with quotations ranging from $7.25 to $8, while the redistilled oil was up 25c to $8. It was reported that there were sufficient stocks on hand to satisfy the demand. Up to the present time, consumers have been buying small quantities.

Spearmint Oil Very Firm

There was no price change in spearmint oil in December, although it became more evident that a decided firmness would persist for a number of months to come. Some sources reported that most of the old crop had been sold under contract, and the limited quantities left would have to satisfy the consumer demand until new-crop relief appears.

Anise Oil Unchanged

While there has been no arrival of the oil from China since the government established an embargo on trade with that country, stocks of anise oil have remained plentiful, mostly because of the lack of buying on the part of the consumer. Many consumers have turned to the alternate commodity of anethol. The price of the oil is still within the range from $1.75 to $2.

Cassia Oil in Short Supply

Unlike anise oil, cassia was very tight last month, with few stocks available on spot. Like anise oil, there was absolutely no material coming through from Communist China to serve as replacement. Some sources were quoting the oil at $5, while others were selling the item at the higher figure of $7.

Bergamot Oil Very Scarce

Bergamot oil is virtually unobtainable on the spot market, since the Italian Consortium has still not made any offers to this country. Some dealers were quoting $11.50, if it was at all possible to procure, and others were quoting as high as $16.50 on spot. Spokesmen in the trade were awaiting news on new crop material which should be available shortly.

Bois de Rose Higher

Bois de rose oil climbed to $5 last month, from the previous figure of $4.50. Some dealers, however, were quoting the lower figure, in view of the large amount of stocks on spot coupled with the small amount of buying interest as the year drew to an end

Geranium Oil Softer

A favorable crop has apparently provided an ample supply of geranium oil at the origin, and at the same time, provided the spot market with more than enough material. The direct result has been a decrease in the price to $22, as against the previous $24 figure for the Bourbon oil. In some quarters, prices as low as $15 have been suggested.

Clove Oil Very Uncertain

While clove oil would ordinarily be selling for about $4.50, the item is so scarce, and replacements so meagre, that a few dealers are quoting it at $6.00, and then it is largely nominal. There is virtually no oil available on spot, many houses having discontinued to quote it altogether because of its uncertainty, the price ceilings, and the extreme difficulties at the origin.

Clove oil is representative of a group of essential oils which through some injustice, have been omitted from the government import order regulating price ceilings. Since clove oil is distilled from the imported spice, and is not imported in the oil form, it is not covered by the government regulation 22 which allows certain profits on imported oils as such, and allows advances in the ceiling prices when warranted. In the case of clove oil, which was exempted from this order, the ceiling price cannot be altered. As a result, importers in this country are unable to buy the spice from foreign sources at the high prices asked, and sell the oil at the lower ceiling price. The only alternative is to buy the clove oil from European distillers—but the difficulty here is that the oil is of uncertain quality. Spokesmen in the trade firmly believe that something should be done to clear this problem up, by allowing some freedom of establishing proper prices on the oil.

Lemongrass Oil Down 50c

Lemongrass oil went down to $3 in December as large stocks became available on spot, and replacements from India could be obtained without difficulty. In spite of the plentiful stocks, there has not been much business in this oil.

Sage Oil Down $1

Sage oil went down to its lowest price in over a year last month as it reached $12.75 for the Dalmatian material. This was a direct result of the more frequent replacements which were coming in at attractive prices.

Vetivert Oil Firm

Vetivert oil was priced at $22.50 early this month, and remained on the firm side, with shipments from Re-union being limited. At the same time, however, the abnormal prices tended to discourage buying on the spot market. This, in turn, kept the oil in ample supply to satisfy the market demand.

Lemon Oil Remains Strong

California lemon oil was down in some quarters, with a few houses offering it at $4.50 a pound, and others, at $5.00. There was only a limited quantity of oil available last month. The new crop, however, will be available soon, and may improve the situation at that time.

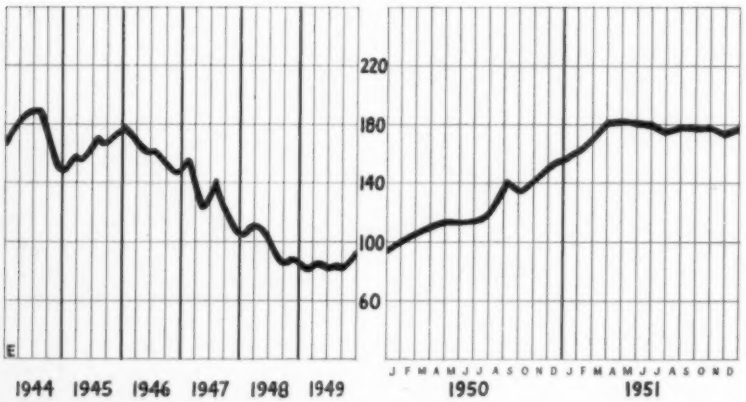
Italian oil, on the other hand, was a good deal stronger, mostly because a large amount had been rejected on entry into the United States owing to its poor quality. The high quality Italian oil was priced at about $9, with the lower grades being quoted at around $5.50 a pound.

Ylang Oil Very Scarce

There has been hardly any activity at all on the spot market as far as ylang ylang oil is concerned, both because there is very little available at the present time, and because it is extremely difficult for the essential oil houses to obtain replacements. The bourbon oil, if it could be had, extended from $18.50, for the lower grades, to as high as $45.00 for the highest grade oil. Some reports circulated in the trade suggested that the shipping prices from the origin may be reduced in a short time.

In many cases these prices were nominal, since a number of the dealers were not handling the oil at all in December.

15 Essential Oils—Weighted Price Index. 1926 = 100.



The essential oils index went up from 174.3 to 178.4. Anise, bergamot, and eucalyptus oils were down; bois de rose and clove oils were up.

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(*Continued from page 109*)

House-to-house selling has been a subject of keen interest to this industry during the last several years and particularly to those executives who are committed to distribution through retail stores. There have been excellent reasons for the keeness of this interest. These executives have seen some of their businesses falter, have found it necessary to greatly accelerate their promotions, the development of new products and other promotional methods, to maintain their volume during a period when there has been clear evidence of a solid and dynamic growth in house-to-house selling. It has been the opinion of many men in this industry that the demonstrator in the home has been licking the pants off the demostrator behind the retail counter in producing sales.

These executives were asked: "*Do you think the increase in house-to-house selling—now around 80 million dollars for cosmetics and fragrances—is due entirely to economic and social reasons, or to some weakness in retail distribution?*" In answering this question, 48 per cent believe that retail weakness is at fault and only 14 per cent picked economic or social reasons.

It is very evident, in comments on this question, that the question itself failed to touch the real reasons in the minds of these executives as to why house-to-house selling has had its recent dynamic growth. A somewhat clearer picture of this is shown in the following questions and answers:

If you think it is due to some retail weakness, which would you choose?

(a)	Poor selling at retail counter	83%
(b)	Department layout and management	19%
(c)	Lack of extension selling by stores	22%
(d)	Centralized location of stores	31%
(e)	Price	4.9%
(f)	Failure of advertising copy	22%

There is not much doubt in the minds of cosmetic executives in regard to the continued growth of the food supermarket in distributing products of this trade. When these men were asked the question: "*Do you think the grocery store will continue to be a growing factor in cosmetic distribution—a further threat to established retail outlets—or is it reaching stabilization with low price staples of this trade?*" their vote was 69 per cent that the supermarket will be a growing threat as compared to 31 per cent who believed that these stores were near stabilization in the place they have now taken in the retail selling of perfumes and cosmetics.

In this survey there was overwhelming agreement on the question: "*Do you feel that there are too many items in cosmetic lines?*" Here 91 per cent of the executives were in positive agreement and only 9 per cent held to the opinion that the industry did not have too many duplicating brands or products.

Further defining this opinion these executives were asked whether the large duplication of similar products on the market is having a bad affect on (1) consumer confusion, to which 72 per cent agreed; (2) tying up retail inventories, to which 77 per cent agreed and

(3) contributing to poor behind-the-counter selling, to which 67 per cent agreed.

Although there has been quite a great deal of complaint in our industry about brand disloyalty, a condition which certainly would seem to arise out of consumer confusion over a multiplicity of products and brand names, these executives do not at all agree that this is a particular problem in our industry or is in any sense a special problem to perfume and cosmetic manufacturers as compared with those of other industries. This opinion is firmly held, in spite of the history of the perfume and cosmetic industry, which shows little stability over a period of years for either companies or products, and which has many times had a vivid lesson in the speed with which some distributor with a new product, which has some advantage and a new talking point, has broken into the industry. Sixty-five per cent of these executives do not believe that there is any particular problem with consumer brand disloyalty and 56 per cent do not believe that this is a problem in the retail store.

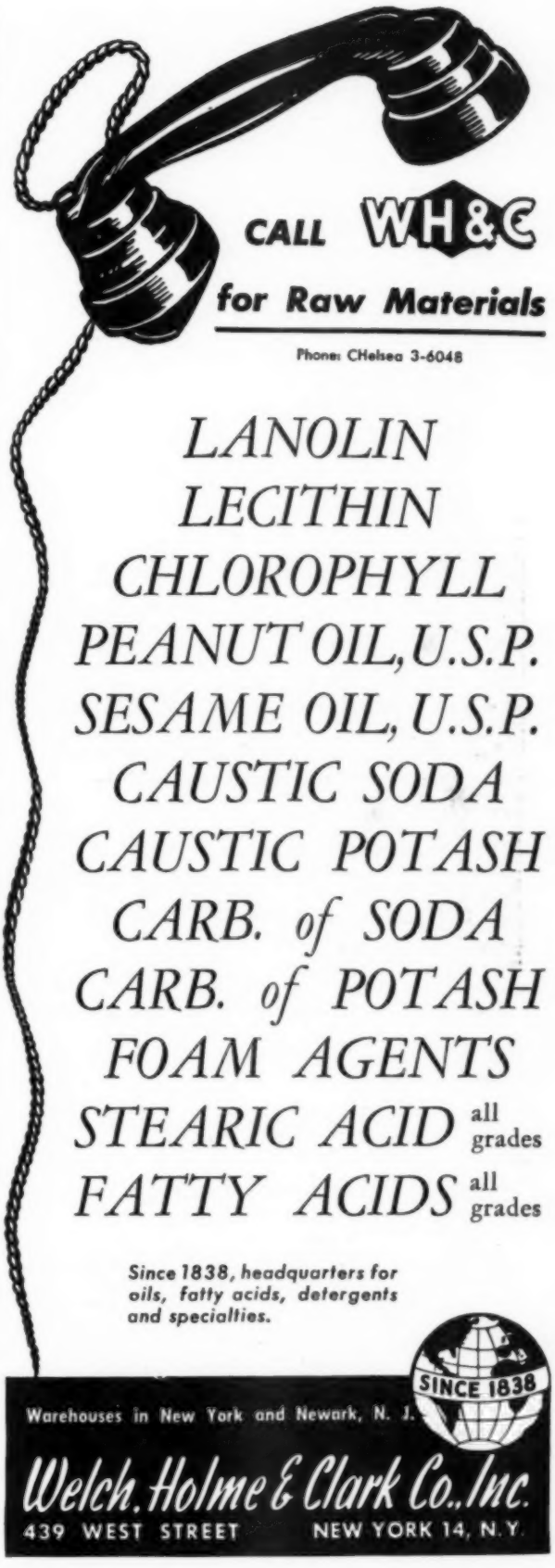
Because of the multiplying problems in cosmetic distribution not only in regard to changes in the retail structure but in problems arising out of such things as Fair Trade and the new cosmetic code, many people have had the impression that there would be a breaking down of some of the rigidly held selected distribution systems and that a new trend would develop toward a wider distribution among many manufacturers of perfumes and cosmetics.

But when asked the question: "*Do you think the trend of class or prestige products in this industry will be for expanding distribution or do you think manufacturers will hold the line on selected distribution?*" 60 per cent of these executives believe that cosmetic distribution will hold the line. This opinion cut through the entire field of distribution and is a combined vote of executives whose companies cover every range from the most limited distribution to mass selling.

This industry in many of its sections, predominantly such things as perfumes, men's toiletries and the higher priced prestige lines, have always leaned very heavily on gift business to support their annual volume. In the last several years things have unquestionably been happening to the gift business in this industry and it is therefore interesting to get a series of executive opinions as to where the industry stands now on this important part of its volume.

When asked the question: "*Has this trade been losing out in competition with other trades (flowers, candy, hosiery, neckties, gadgets, etc.) on such gift days as Mother's Day, Father's Day, Easter, June weddings?*" 71.7 per cent of these executives are of the opinion that this industry is losing out, with only 28.3 per cent in disagreement.

On the specific question: "*Has Easter business slipped?*" 81 per cent of the trade voted "Yes" and on a further question asking whether they thought more Easter promotions should be revived, 76 per cent agreed.



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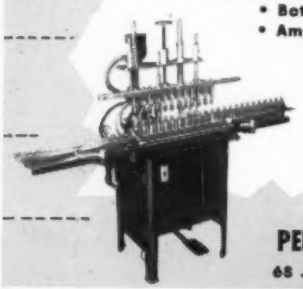

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On the other hand, the majority believe that the industry is holding its own in industry competition for Christmas. On this question 65.5 per cent voted in the affirmative.

There would seem to be very clear evidence in the trade that there has been a decline in imaginative Christmas packaging during the last few years. Contributing to this opinion that such a decline has taken place has been a widespread retail attitude to hold purchases for a large part of Christmas gifts to a price of $5 and below and to a growing unwillingness by many manufacturers to take too many risks on return goods. As a result of this there has been a widespread movement in Christmas packaging to enclose staple packages in an outer gift wrap or box which can be torn off after Christmas, restoring the staple goods to regular counter sale.

In spite of these seeming trends, there is an emphatic opinion among perfume and cosmetic manufacturers that there has been no decline in the character and quality of Christmas packaging. In answer to the following question many of these manufacturers wrote very precise comments supporting their view that the industry has held its position as having a flare and leadership for gift packages.

Here is a question on Christmas packaging:

To what do you attribute the decline in imaginative, speculative Christmas packaging?

(a)	Consumer indifference	20.0%
(b)	Store conservativeness	14.8%
(c)	Return goods restrictions	42.5%
(d)	Manufacturers' conservativeness	28.0%
(e)	Lack of sales control policy by manufacturers, i.e. quota restrictions	9.0%

During the last few years perfume manufacturers have put on the market a number of variations in perfume packaging, where the undeclared but specific purpose of these variations has been to maintain the prestige price range of the essence and at the same time to market a form of fragrance at a price which would maintain sufficient consumer volume and sufficient activity at the retail counter to keep these brand names in an active status. Not all perfume manufacturers have produced all of these different variations. There has been and is now a running debate on which of these products will become a permanent part of the industry.

The question was asked: *Do you rate the following as permanent products of the industry?* The answers listed below are the current opinion of perfume executives as to the stability and permanence of these fragrance products.

(a)	Purse sizes	Yes 94%	No	6%
(b)	Two-ounce cologne	Yes 73%	No	27%
(c)	Solid Cologne	Yes 55%	No	45%
(d)	Sampler Kits	Yes 35%	No	65%

Some products of this industry have had a dynamic growth during the last several years. Among these have certainly been hair products, deodorants and indelible lipsticks. Yet when asked to define which

products will continue to show dynamic growth during the following years these executives came up with what seems to be a rather inconclusive opinion. The question here was: "*What products do you think will continue to show dynamic growth next year?*" Here are the answers:

Shampoos	25%	Deodorants	34%
Hair Dyes	40%	Depilatories	4%
Home Permanent Waves	32%	Indelible Lipsticks	34%
Home Hair Tints	59%	Special Creams	17%
Eye Make-Up	17%	Solid Colognes	34%
Men's Toiletries	40%	Solid Perfumes	6%
Children's Toiletries	13%	Foot Preparations	11%

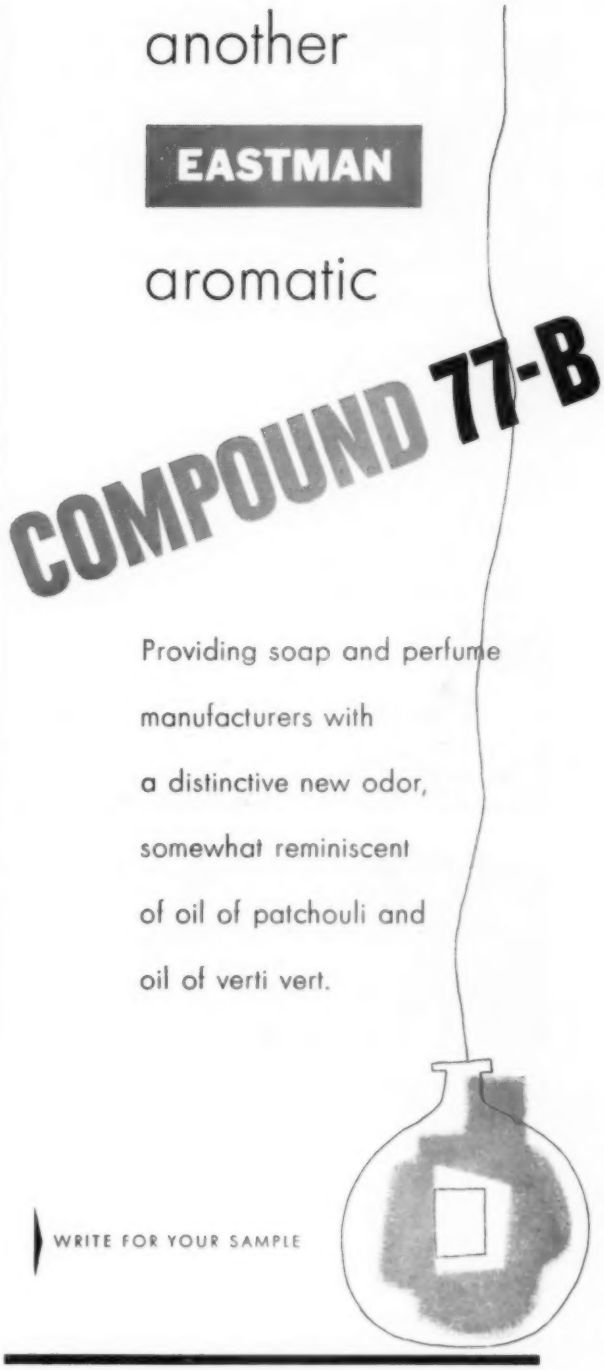
Fragrance is a major and important part of this entire industry producing a volume at manufacturers' selling prices of over $80,000,000. Colognes and toilet waters in volume of unit packages are by far the predominant part of this volume. When these manufacturers were asked what they considered should be the ratio of sales for perfumes as compared to toilet water and cologne in dollars, 28 per cent thought it should be 1 to 2; 44 per cent, 1 to 5; and 28 per cent 1 to 10. This means that 72 per cent of the fragrance manufacturers believed that the ratio in dollars should be at 1 to 5 or over.

No other part of the industry has been so unanimously concerned over the market status for their products as have the perfumers and those others with whom fragrance in some form is an important part of their business. This general interest in the status of their market had its real start in the investigation made by the predecessor of the Fragrance Foundation through the Psychological Corporation. In the beginning of this present survey it was shown how universally the entire industry is convinced that fragrance products, have a large, substantial field for expansion, not only among the number of women using fragrance but in the frequency of use by those women who are now to some degree using fragrance products. For this reason the following question brought forth a great many comments, including many manufacturers whose interest in fragrance would appear to be secondary to other forms of cosmetic products.

Here is the question: *Which of the following, in your opinion, will help to increase the frequency of use of fragrance by American women?*

(a)	Better retail selling	70%
(b)	More informative advertising	70%
(c)	Just more advertising	7%
(d)	Increase in customer sampling	28%
(e)	More promotions, retail level	21%
(f)	More attention to gift days	24.6%
(g)	Increased consumer education via Fragrance Foundation	70%
(h)	Lower price levels for standard sizes	19%
(i)	Development of more ideas along lines of purse sizes, sampler kit, solid cologne, etc.	28%
(j)	Efforts to secure more specialized space and interest of retailers	38%

In these answers it's certainly interesting to observe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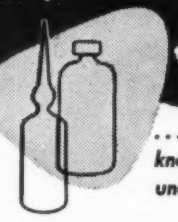

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that perfume and cosmetic executives emphatically believe that there are three primary paths for increasing the consumption of fragrance products. It's rather remarkable that the exact same percentage should be applied to these three different selling instruments and that these three should stand out so prominantly above every other suggestion for a way to help sell more fragrance. It's worth noting that in several of the previous questions in the survey the problem of the quality of selling at the retail counter has appeared as a basis of some of the trouble of the industry, and that the question of more informative and less glamorous type of advertising was discussed as a problem of the whole industry as well as the fragrances.

The Fragrance Foundation was commented on by quite a number of manufacturers with enthusiastic approval and it's certainly more than interesting that this method of cooperative selling, which is so widely employed in so many other industries but is now entering this industry for the first time, should receive, as far as we can tell from a study of these questionnaires, unanimous approval.

As with every other industry and business, cosmetic folks have no illusions that 1952 will fail to bring some painful headaches. Most of these headaches will probably develop in the sales department rather than in production. In answering this question, these executives who are responsible for company policy and who will take the blame and the praise for sales plans, report as follows:

Which of the following would you call the headaches of 1952?

(a)	Fair Trade	47%
(b)	P.M.'s	44%
(c)	Co-operative advertising	30%
(d)	Adjustments for demonstrators	16%
(e)	Distribution problems—supermarkets, etc.	16%
(f)	Material shortages	17%
(g)	Rising Costs	63%
(h)	Changing consumer shopping and buying preferences	5.4%
(i)	Planning for sales of staples versus short life promotions	14%
(j)	Financing adequate selling representation	12%
(k)	Problems arising out of policies dictated by retailers' own problems	16%

Patent Thoughts and Trends

(Continued from page 101)

poly substituted groups may be used: 1. Thioglycerol, mono-, di-, or polythio-polyhydric alcohols, e.g., trithio hexitols, mono- and polythio-polyoxy-ethylene glycols (e. g., tetra glycol dimercaptan); 2. mercapto-ethyl-hydroxy ethylamine, trio-mercapto-ethyl amine; 3. mono-, di-, and polythio-polyhydroxyacids; 4. mercapto di- and polycarboxylic acids, mono-, di- and trithio mucic acids, mono- di- mercapto succinic acid, thio-citric acid, mercaptoaminoacids; 5. alpha mercapto-methyl furane, thiophene, pyrrole, pyrimidine, thio-furfuralcohol; 6. mercapto alkyl pseudo thioureas; 7. mercaptoalkylureas and thioureas; 8. mercaptoethyl

urethane, mercaptoethylacetamide, mercapto ethyl guanidine, mercaptoalkyl betains and taurines.

I have discovered that all of the materials mentioned above function satisfactorily as hair waving agents when used in solutions. The concentration is usually less than 15 per cent. I have found that the mercaptans are especially effective when the pH range is from 7.0 to 10.0, the preferred pH being about 9.2.

I have found that all alkaline materials are satisfactory for adjusting these pH's but that particularly effective with less hair destructive effect are bases having a dissociation constant less than 5×10^{-3} and preferably about 10^{-5}. In the "cold" waving process also I have found the volatile bases, such as ammonia, methylamine, and ethylamine are to be preferred with the mercaptans, since at the same pH value and mercaptan concentration solutions containing these volatile bases give tighter waves. Ammonia, therefore, is particularly to be preferred with the mercaptans since its ionization constant is satisfactory, its odor blends pleasantly with the mercaptans and it has a relatively non-irritating action in the desired pH range of 7.0 to 10.0.

This pH range is particularly critical when the waving agent is used for that type of waving employing a chemical setting agent, as in the so-called "cold waving" method, since in that system the necessary requirement of speed without hair destruction demands a high concentration of the waving agent in the waving solution. If the pH value is not high enough slow waving action will result and if too high the hair will be destroyed or badly damaged. While with sulfite a shorter waving time may require a pH of 10 or above, with these more powerful waving agents, the use of pH's higher than 9.5 must be watched very carefully for with pH of 10 or above, hair destruction or injury may occur before a satisfactory wave is obtained.

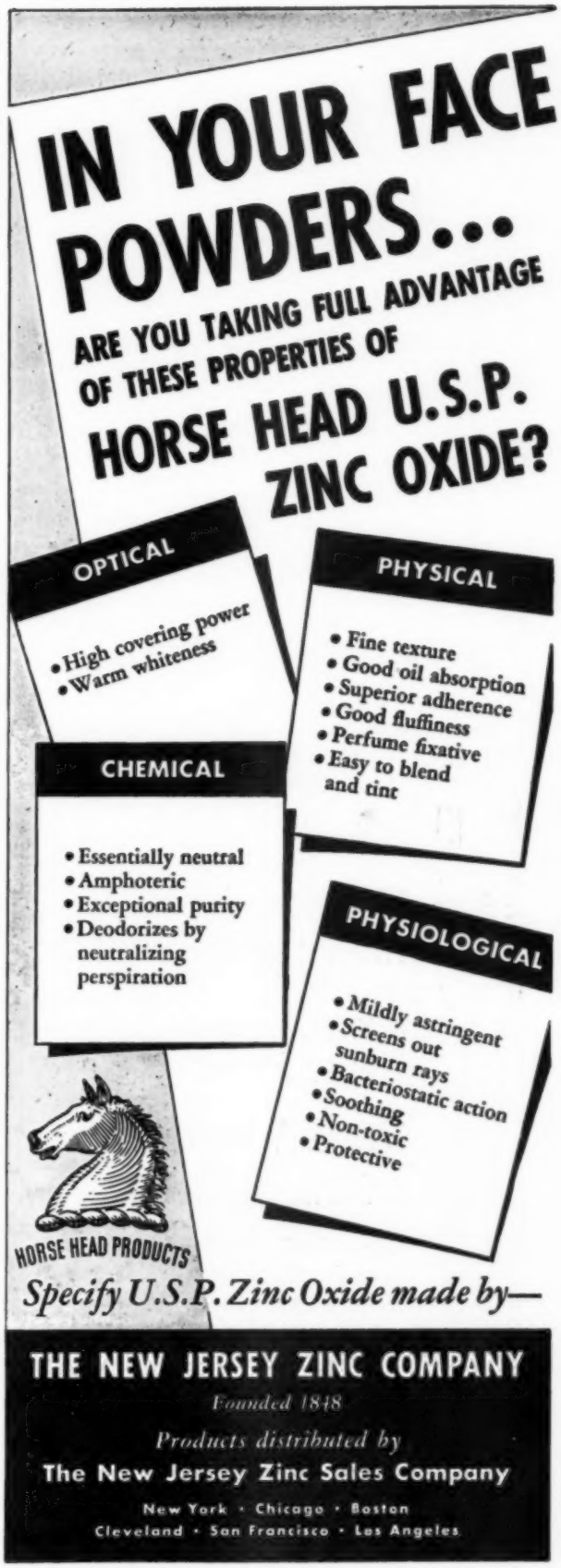
It is to be noted that organic sulfides and disulfides are not effective waving agents.

I have discovered that whereas all the mercaptans function very effectively in permanent waving where the final set is accomplished by heating and then cooling, when used in the so-called "cold waving" method requiring a chemical setting solution, unusual and startling differences from the prior art become apparent.

I have discovered that from the point of view of efficiency waving action, the least effective compounds are the mercaptans containing polar acid groups such for example, as mercapto-acetic acid. For example, even when using twice the concentration of mercapto acetic acid at the optimum pH, the wave obtained is not as good as when using a mercaptan having non-polar groups such as glyceryl mono mercaptan.

Furthermore, I have found that mercaptans containing polar groups are difficult to remove from the hair and whenever the hair becomes damp, for instance, in bathing, shampooing, or at sports such as skiing, the residual odor tends to offend. This is most observable with mercaptans containing polar alkaline groups such as β-amino ethyl mercaptan.

This odor effect is thus of tremendous importance, not only during the processing of the wave, but for a long time afer the wave has been given. As stated above the bad odor and other disadvantages of the simple mercaptans can be obviated by having the organic group R of the mercaptan molecule contain either polar or non-polar groups. By the term "vapor-pressure-depressing substituent in the organic group R" of the mercaptan formula R—SH, is meant a substituted mercaptan which contains in its organic group R either a polar (ionizing) group or a non-polar



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(non-ionizing) group of the type above described. I have found that whereas certain groups such as polar groups tend to reduce the vapor pressure of the mercaptan and thus make the resulting mercaptan less objectionable, nevertheless the malodor, although much fainter, tends to persist. I have discovered, however, that while the non-polar groups may be less effective in reducing the vapor pressure yet they change the resulting odor by the sweetening action of their groups. For example, to illustrate the sweetening power of the hydroxyl group, thioglycerol is much sweeter than thio-propylene glycol which in turn is sweeter than the propyl mercaptan. Also, other non-polar groups, such as ethers, aldehydes, ketones and esters are effective, as is illustrated by the effect of the ether linkage of the following related compounds. Increasingly pleasant to smell are diglycol di-mercaptan, triglycol dimercaptan, tetraglycol dimercaptan.

I have also discovered that as the molecular weight increases, the mercaptan becomes less effective as a waving agent, particularly if the increase is due to a polar acid group. For example, β-amino ethyl mercaptan (molecular weight 77) is far more efficient as a waving agent than cysteine (molecular weight 121) which is molecularly heavier and contains the polar carboxyl group in addition to the polar amino group.

I have discovered that by far the best waving agents within the scope and spirit of this invention, from every standpoint, are the mercaptans containing non-polar groups, and particularly water-solubilizing groups, such as the hydroxy and ether groups thereof. For example, on a basis of odor, waving strength, and toxicity, these compounds in "cold waving" particularly, are far more desirable and effective than ammonium hydrogen sulfide, which has heretofore been utilized particularly for "cold waving." Actually, not only do these non-polar mercapans give better waving results and lack bad odor but also they are easier to remove from the hair and can be completely removed by shampooing or by thoroughly rinsing with water, no malodor being detected on the hair. More important, is that their easy removal allows practically no retention by the hair to effect a relaxation or loosening of the permanent wave with each succeeding wetting of the hair.

This very important feature of not losing its curl, once the hair is waved, and the imparting of an excellent elasticity to the curl and a fine lustrous natural gloss, result in a more natural appearance than has been possible with prior hair waving treatments. Particularly effective are the mercapans containing more than one water-solubilizing group as, for example, the polyhydroxy mercaptan, e. g., thio-glycerol (glyceryl monomercaptan). This substance's great value, on an equivalent SH basis is shown by the fact that it is several times as powerful in waving value as ammonium hydrogen sulfide.

As illustrations of waving solutions using the new waving agents according to this invention, the following specific examples are given:

EXAMPLE 1
Polar type—Acidic

Mercapto-acetic	**10 gms**
Ammonium hydroxide	**10 cc**
Water q.s.	**100 cc**

EXAMPLE 2
Non-polar type

Glyceryl monomercaptan	**5 gms**
Ammonium hydroxide	**2.5 cc**
Water q.s.	**100 cc**

EXAMPLE 3
Polar type—Basic

Mercapto ethylamine	**5 gms**
Water q.s.	**100 cc**

The waving solution in any of the above examples may be utilized for effecting a "cold wave" by soaking the hair therein and applying thereafter a rinse, say, of sodium hypochlorite or other suitable rinse such as hydrogen peroxide, tartaric acid or the like. I have found that it is desirable to remove as much of the solution of the waving agent as possible by first rinsing with water. I have discovered that with mercaptans containing water-solubilizing non-polar groups, such as glyceryl monomercaptan, so complete is the removal by water alone that excellent non-relaxing waves can be obtained without the need for additional fixing or setting rinses.

In the examples given above the treatments resulted in satisfactory curls of medium tightness. For Example 1, however, the wave produced was not as strong as that given with the waving solutions of Examples 2 and 3.

The hair treated with the solution of Example 3, which needed no ammonium hydroxide added, did, however, tend to retain an odor noticeable upon wetting the hair while with the solution of Example 2 not a trace of bad odor was present even when the waved hair was re-wetted. For more effective washing out of the mercapto-containing amines from the hair, it is possible to have additional groups such as hydroxyl present. Particularly effective as such a compound is 2-hydroxy 3-amino propyl mercaptan.

Thus it is seen that mercaptans containing polar and non-polar grops may be used. It has been brought out hereinbefore that either polar or non-polar groups are within the spirit and scope of this invention. Polar groups differ from non-polar in that in water solution they may ionize.

If any of the above examples are used for waving where heat is employed, the concentration of the waving agent may be materially decreased, approximately to one-third or one-fifth of the concentration given in the examples.

Thus, for waving where heat is employed, the concentrations of the waving agents given in the above examples, so decreased, would be:

EXAMPLE 1
Polar type—Acidic
Mercapto-acetic,about 2 gms. to 3.3 gms.

EXAMPLE 2
Non-polar type
Glyceryl monomercaptan, about 1 gm. to 1.66 gms.

EXAMPLE 3
Polar-type—Basic
Mercapto ethylamine, about 1 gm. to 1.66 gms.

In considering this invention, it must also be borne in mind that a purpose is to provide a waving agent for use in a solution, the concentration of the waving agent being much lower than heretofore effective commensurate with the desired effect of waving the hair.

As a comparison of the reductin of concentration of the waving ingredient provided by the instant invention as against that of one of the standard waving agents used in this art, namely, sodium sulfite, I have found that the same wave under the same conditions of procedure can be given with about one-fifth of the concentration of my new waving agent, e.g., a solution of 2 per cent of mercapto ethylamine will give the same

KOMMON/ SCENTS!

Our country's prosperity seems to be written as much in its scandals as in its accomplishments. When Harding was President there were high-placed people who tried to make an extra buck through Federal property. Under Truman there are those who are trying to keep their buck from becoming Federal Property via the Collector of Internal Revenue.

•

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•

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Innocently enough, the venerable Benjamin Franklin seems to be the preceptor of the current scandals. It was Ben who said:
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effect as 15 per cent of sodium sulfite. Thus, by the instant invention, I can use the same time of operation but greatly reduce the concentration of the waving ingredient. Alternately, I can shorten the time of waving by using a stronger concentration but still below the concentrations heretofore used, for instance the sodium sulfite above mentioned. I, therefore, provide a complete control of the waving process by the waving agent.

Utilizing the waving solution of any of the examples, the following procedure, or one similar thereto, may be employed in giving a permanent wave: The head of hair is blocked off into sections and each of the sectioned strands is then well soaked in the waving solution. Thereafter, each section of hair is wound on a mandrel, to the form desired and heat is then applied, as by a chemical heating pad arranged over the wound section or by an electrical heating unit, the temperature being raised to about 212° F., and the hair, upon cooling, sets into its new configuration.

In giving a "cold wave," procedures similar to the following, which may be variously modified, may be used: The head of hair is again sectioned off into strands which are preferably wound on mandrels, the waving solution being applied before or after winding by soaking the hair in any desired manner. After a suitable lapse of time for the reaction, the hair is water rinsed, and then a chemical rinse such as chlorine water may be applied which removes the last trace of the waving agent and thus assures the fixing of the hair in its new configuration, whereafter the hair will have a permanent wave. With an easily rinsable waving agent, such as glyceryl monomercaptan, this after rinse treatment is not necessary if proper water rinsing is employed.

I have found that in order to reduce the time of waving by this chemical method, i.e., without heat, to a figure comparable to the time of waving by heat it is necessary to increase the concentration of mercaptans in the waving solution about three to five times. Thus, the concentrations of mercaptans in the above examples, when so increased from the concentrations suitable for waving with heat, would be as follows:

EXAMPLE 1

Polar-type—Acidic

Mercapto-acetic, about 6 gms. to 10 gms.

EXAMPLE 2

Non-polar type

Glyceryl monomercaptan, about 3 gms. to 5 gms. to 8.3 gms.

EXAMPLE 3

Polar type—Basic

Mercapto ethylamine, about 3 gms. to 5 gms. to 8.3 gms.

Thus, it is possible to so select the concentration of my novel waving agent in the waving solution that the desired time of actual treatment becomes feasible, ranging from a low concentration with longer time of application as is desired in some methods of cold waving, or a low concentration in continuous intimate contact with shorter time of application, or a low concentration with shorter time using heat, to higher concentrations with decrease in time whether the fixation is by chemical, or by cooling subsequent to heating. Since the time of waving is greater with lower concentrations and less with higher concentrations of mercaptans and since, as described above, the time of waving is greater with a lower pH value and less with a higher pH value, it follows that the concentration of the mercaptan and the pH of the solution can be adjusted within the ranges given above to obtain a permanent change in the configuration of human hair during a given time of application without damage to the hair structure by having the concentration of mercaptan in the higher portion of the concentration range for a lower pH and and having the concentration of mercaptan in the lower portion of said concentration range for a higher pH. But I do not under any conditions use concentrations higher than heretofore used. On the contrary, comparing the time-concentration factors of my novel waving agent with waving agents of the prior art for equivalent purposes, it will be found that under all analogous conditions I provide a distinct reduction in concentration while attaining optimum results in the final waving.

While throughout this specification I have specifically mentioned the waving of hair, I do not wish to limit myself thereto, since by this invention it is possible to permanently alter or reform the form, shape or configuration of the hair as desired. Thus, my invention contemplates also the reverse of waving, such as dekinking, removal of curls or waves, imparting of creases and the like. Furthermore, it is not my intention to limit this invention or the term "hair" as used herein to treatment of human hair, but rather to include the treatment of any form of fiber structure which contains keratin. The waving solution according to this invention may be applied to the hair at any desired time, either before or after winding or otherwise mechanically placing the hair in its reformed desired shape or form and by any desired means, such as soaking, spraying, continuous circulation or the like, and the claims are to be so construed. Furthermore, while I have described examples of my invention and have outlined advantages thereof over the prior art, I do not wish to limit myself to the exact materials or proportions given hereinbefore since a variety of like or similar materials may be used in lieu of those specified and the proportions thereof may be widely varied without departing from the spirit of my invention or the intended scope of the appended claims.

I claim:

1. A permanent waving composition comprising a mercaptan having a molecular weight less than 121 and having the general formula R—SH, where the organic group R contains a carbon atom attached to the sulfur atom, said mercaptan having a vapor-pressure-depressing substituent in the organic group R, in a solution containing an alkaline material having a dissociation constant less than 5×10^{-3}, said solution having a pH higher than pH 7 and not higher than pH 9.5, the concentration of said mercaptan in terms of weight per volume ranging between about 1 per cent and about 10 per cent, the concentration of mercaptan and the pH of the solution being adjusted within said ranges to obtain a permanent change in the configuration of human hair during a given time of application without damage to the hair structure by having the concentration of mercaptan in the higher portion of said concentration range for a lower pH and having the concentration of mercaptan in the lower portion of said concentration range for a higher pH within the stated pH range.

2. A permanent waving composition comprising a solution having a concentration in terms of weight per volume of 3 per cent to less than about 8 per cent of a mercaptan having a molecular weight less than 121 and having the general formula R—SH, where the organic group R contains a carbon atom attached to the sulfur atom, said mercaptan having a vapor-pressure-depressing substituent in the organic group

R, and a voltatile base having a dissociation constant less than 5 x 10^{-3}, said solution having a pH ranging from about 9.2 to not higher than 9.5, the concentration of mercaptan and the pH of the solution being adjusted within said ranges to obtain a permanent change in the configuration of human hair during a given time of application at temperatures tolerable to the human body without damage to the hair structure.

3. A permanent waving composition comprising a solution having a concentration in terms of weight per volume of 3 per cent to less than about 8 per cent of a mercaptan having a molecular weight less than 121 and having the general formula R—SH, where the organic group R contains a carbon atom attached to the sulfur atom, said mercaptan having a vapor-pressure-depressing substituent in the organic group R, and an alkaline material having a dissociation constant less than 5 x 10^{-3}, said solution having a pH of about 9.2 to not higher than 9.5, the concentration of mercaptan and the pH of the solution being adjusted within said ranges to obtain a permanent change in the configuration of human hair during a given time of application at temperatures tolerable to the human body without damage to the hair structure.

4. The method of permanently changing the configuration of human hair without damage to the hair structure, including the steps of imparting the desired configuration to the hair and treating of the hair for a length of time with a permanent waving solution comprising an alkaline material having a dissociation constant less than 5 x 10^{-3} and a mercaptan of the general formula R—SH where the organic group R contains a carbon atom attached to the sulfur atom, said mercaptan having a vapor-pressure-depressing substituent in the organic group R and having a molecular weight less than 121, said solution having a pH higher than pH 7 and not higher than pH 9.5, the concentration of the mercaptan in terms of weight per volume ranging between about 1 per cent and about 10 per cent, the concentration of mercaptan and the pH of the solution being adjusted within said ranges to obtain a permanent change in the configuration of human hair during a given time of application without damage to the hair structure by having the concentration of mercaptan in the higher portion of said concentration range for a lower pH and having the concentration of mercaptan in the lower portion of said concentration range for a higher pH within the stated pH range; and then fixing said configuration.

5. The method of permanently changing the configuration of human hair without damage to the hair structure, including the steps of imparting the desired configuration to the hair and treating of the hair with a permanent waving solution comprising about 1 per cent to about 10 per cent in terms of weight per volume of a mercaptan of the general formula R—SH where the organic group R contains a carbon atom attached to the sulfur atom, said mercaptan having a non-ionizing vapor-pressure-depressing substituent in the organic group R, and an alkaline material having a dissociation constant less than 5 x 10^{-3}, said solution having a pH higher than pH 7 and not higher than pH 9.5; the concentration of mercaptan and the pH of the solution being adjusted within said ranges to obtain a permanent change in the configuration of human hair during a given time of application without damage to the hair structure by having the concentration of mercaptan in the higher portion of said concentration range for a lower pH and having the concentration of mercaptan in the lower portion of said concentration range for a

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higher pH within the stated pH range; and then fixing said configuration.

6. A composition as specified in claim 1 wherein the vapor-pressure-depressing substituent is an ionizing group.

7. A composition as specified in claim 1 wherein the vapor-pressure-depressing substituent is an acidic group.

8. A composition as specified in claim 1 wherein the vapor-pressure-depressing substituent is a non-ionizing group.

9. A composition as specified in claim 1 wherein the vapor-pressure-depressing substituent is an ether group.

10. A composition as specified in claim 1 wherein the dissociation constant of the alkaline material is about 10^{-5}.

11. A composition as specified in claim 3 wherein the dissociation constant of the alkaline material is about 10^{-5}.

12. A composition as specified in claim 3 wherein the concentration of mercaptan is about 6 per cent.

13. A composition as specified in claim 3 wherein the vapor-pressure-depressing substituent is an ionizing group.

14. A composition as specified in claim 3 wherein the vapor-pressure-depressing substituent is an acidic group.

15. A composition as specified in claim 3 wherein the vapor-pressure-depressing substituent is a non-ionizing group.

16. A composition as specified in claim 3 wherein the vapor-pressure-depressing substituent is an ether group.

17. A permanent waving composition comprising a solution having a concentration in terms of weight per volume of about 1 per cent to about 10 per cent of a mercaptan having a molecular weight less than 121 and having the general formula R—SH, where the organic group R contains a carbon atom attached to the sulfur atom, said mercaptan having a vapor-pressure-depressing substituent in the organic group R, and an alkaline material having a dissociation constant less than $5x10^{-3}$, said solution having a pH of about 9.2, the concentration of mercaptan being adjusted with respect to said pH to obtain a permanent change in the configuration of human hair during a given time of application at temperatures tolerable to the human body without damage to the hair structure.

18. A permanent waving composition comprising a mercaptan having a molecular weight less than 121 and having the general formula R—SH, where the organic group R contains a carbon atom attached to the sulfur atom, said mercaptan having a vapor-pressure-depressing substituent in the organic group R, in a solution containing an alkaline material having a dissociation constant less than $5x10^{-3}$, said solution having a pH higher than pH 7 and not higher than pH 9.5, the concentration of said mercaptan in terms of weight per volume being about 6 per cent, and the pH of the solution being adjusted within said ranges to obtain a permanent change in the configuration of human hair during a given time of application without damage to the hair structure.

EVERETT G. McDONOUGH

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The disclosure of U.S. 2,577,711 is the same as that of U.S. 2,577,710. The claims of U.S. 2,577,711 follow:

1. A permanent waving composition comprising in solution a mercaptan having the general formula R—SH, where the organic group R contains a carbon atom attached to the sulfur atom, said mercaptan having a hydroxyl substituent in the organic group R, in a solution containing an alkaline material having a dissociation constant less than 5×10^{-3}, said solution having a pH higher than pH 7 but not higher than pH 9.5, the concentration of said mercaptan in terms of weight per volume ranging between about 1 per cent and about 10 per cent, the concentration of mercaptan and the pH of the solution being adjusted within said ranges to obtain a permanent change in the configuration of human hair during a given time of application without damage to the hair structure.

2. A composition according to claim 1 wherein the mercaptan is a mercapto-carbinol compound.

3. A composition according to claim 1 wherein the mercaptan is B-mercapto-ethyl alcohol.

4. A composition according to claim 1 wherein the mercaptan is mercapto-propanol.

5. A composition according to claim 1 wherein the mercaptan is a poly hydroxy mercaptan.

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6. A composition according to claim 1 wherein the mercaptan is thioglycerol.

7. A composition according to claim 1 wherein the mercaptan is mono-thio-hexitol.

8. A composition according to claim 1 wherein the mercaptan is a mono-thio-polyoxyethylene glycol.

9. A permanent waving composition comprising a solution of ammonia and 1 per cent to about 10 per cent in terms of weight per volume of glyceryl mono-mercaptan, said solution having a pH ranging from about 9.2 to not higher than 9.5.

10. The method of permanently changing the configuration of human hair, including the steps of imparting the desired configuration to the hair and treating of the hair at a temperature tolerable to the human body with a permanent waving solution comprising an alkaline material having a dissociation constant less than $5x10^{-3}$ and 1 per cent to about 10 per cent in terms of weight per volume of glyceryl mono-mercaptan, said solution having a pH higher than pH 7 and not higher than pH 9.5, the concentration of the mercaptan and the pH of the solution being adjusted within said ranges to obtain a permanent change in the configuration of human hair during a given time of application without damage to the hair structure; and then fixing said configuration.

11. The method of permanently changing the configuration of human hair, including the steps of imparting the desired configuration to the hair and treating of the hair at a temperature tolerable to the human body with a permanent waving solution comprising an alkaline material having a dissociation constant less than $5x10^{-3}$ and 1 per cent to about 10 per cent in terms of weight per volume of a mercaptan containing a nonpolar hydroxyl group, said solution having a pH higher than pH 7 and not higher than pH 9.5, the concentration of the mercaptan and the pH of the solution being adjusted within said ranges to obtain a permanent change in the configuration of human hair during a given time of application without damage to the hair structure; and then fixing said configuration.

12. A composition according to claim 1 wherein the concentration is about 5 per cent.

13. The permanent waving composition:

Glyceryl monomercaptan	**5 gms.**
Ammonium hydroxide	**2.5 cc.**
Water q. s.	**100 cc.**

It goes without saying that the reader will be kept advised of all important count developments concerning these McDonough patents.

Vaginal Douches

(*Continued from page 41*)

stated by Karnaky,[10] an authority in this field, when he said that, in infections of the vagina, douches are necessary twice daily in order to wash out the nonphysiologic and irritating vaginal secretion. However, Wharton[11] has pointed out that, "Many perfectly healthy women who have no leukorrhea use douches two or three times a week for the sake of cleanliness. This is perfectly reasonable as long as one administers the douche properly, uses the proper solutions and keeps the apparatus clean." He also stressed the importance of avoiding solutions that are too strong or, too hot and the danger of introducing infection through the use of contaminated douche apparatus.

Reich and his associates[12] suggest the prophylactic use of a mild antiseptic douche following exposure to a possibly contaiminated tub, pool, toilet seat or linens, or following sexual congress. They feel that such a procedure may provide a reasonably safe means of protection. Also noteworthy is Smith's[9] observation that cleansing douches are used when there is an increase in vaginal discharge sufficient in amount to be troublesome but without pain or evidence of inflammation. Such douches are repeated as often as necessary.

Douches play a valuable role in the treatment of excessive vaginal discharge, a condition often referred to as leukorrhea or the "whites." It is a commmon gynecologic complaint, one that is characterized by an abnormal, usually whitish and nonbloody discharge from the genital tract.[13] Of course, a certain amount of vaginal secretion is normal and is readily explained on a physiological basis. Under certain circumstances, as during sexual stimulation and during pregnancy, excess of secretion may be regarded as normal.

With these exceptions, excessive vaginal discharge is always a source of worry to a woman and may be a sign of something seriously wrong. As remarked by Shaw,[14] the milder forms arouse distress more or less in proportion to the natural fastidiousness of the woman concerned. The more severe forms may seriously interfere with her rest and working capacity, and may be symptomatic of serious internal trouble. In Dodges'[6] opinion, any vaginal discharge or secretion sufficient in amount to be noticeable or stain lingerie, and lasting considerably over one or two days, is enough to be considered abnormal; requiring treatment by a physician.

According to Hesseltine,[15] vaginal discharge is one of the most frequent findings with an infection of the vagina or cervix. Kuder[7] similarly notes that vaginal discharge is the symptom most frequently encountered in vaginal infection and it may be present with any type of vaginitis. Vaginitis, she states, is a condition which may cause great discomfort; being accompanied by such symptoms as pain or urination, burning, itching, dyspareumia, backache and even headache.

Depending on the type of organisms causing the inflammation, vaginitis may be classified broadly as specific and nonspecific. An infection of the nonspecific type is caused by mixed bacterial flora, and the vaginal mucosa becomes red, swollen and tender. Pointing out that many methods have been used in the treatment of nonspecific vaginitis, Kuder explains that the rationale of therapy is to use a preparation that has bacteriostatic properties, that is effective at different pH levels, and that alters the vaginal pH by bringing it within the normal acid levels. Such therapy would change the vaginal environment to one hostile to the growth of the invading pathogenic organisms and assist in the restoration of the normal Doderlein bacilli.

She observes that vaginal douches with acid or alkaline chemicals have often been employed in the treatment of nonspecific vaginitis. However, in her opinion, alkaline douches are not desirable since bacteria thrive in an alkaline medium and the normal pH of the vagina is acid.

A specific vaginitis is present when the infection

is due to a single, proved type of invader. The three main types of specific vaginitis are: gonorrheal vaginitis, Trichomonas vaginalis vaginitis and monilial vaginitis. The treatment of gonorrheal vaginitis is outside the scope of this review, but douches are useful in the therapy of the other two specific forms of vaginitis.

According to Reich and Nechtow,[16] the protozoan Trichomonas vaginalis is probably one of the more common causes for vaginal discharge. They report that at the gynecologic clinic of the Cook County Hospital in Chicago about 25 per cent of all cases of vaginitis are of the trichomonas type. However, the incidence of trichomoniasis varies with different investigators; ranging from about 13 per cent to 37.5 per cent.[17] Philip[18] has observed that, while Trichomonal vaginitis is not a major pathology, it is burdensome; causing a purulent, foamy, irritating discharge.

He points out that therapy of the condition is not uniform and is mostly mechanical. It consists of frequent washings with green soap, plus acid douching even at the time of menstruation, when the protozoa multiply. However, various medicaments, including agents that combat the trichomonads, are also widely used. Kuder[7] also observes that chemicals which render the environment within the vagina either acid or alkaline have been employed, since a pH of 5 or less or of 7.5 or more inhibits the organism. The acid therapy would seem to be more desirable, says she, in view of the normally acid condition of the vagina.

Monilial vaginitis is caused by the fungus Candida (Monilia) albicans. The infection is also known as vaginal thrush, or as yeast, fungus or mycotic vaginitis. It probably accounts for about 8 to 12 per cent of the cases of vaginal discharge; the patients complaining of leukorrhea, pruritus and vaginal soreness. The condition is often seen during pregnancy and in diabetes because of increased glycogen in the vaginal mucosa.[16]

Various agents are used in treating monilial vaginitis, but gentian-violet preparations are most commonly employed. Alkaline douches, with sodium bicarbonate as the active agent are often prescribed in this condition.[16] Philip[18], for example, employs douches containing 3 to 5 per cent of sodium bicarbonate. In contrast, Karnaky[19] advocates the use of acid douches, consisting of three to five tablespoonsful of vinegar to two quarts of water, in the treatment of vaginitis due to Monilia albicans. He[20] feels that, from his studies there is no rationale to the use of alkaline in preference to acid douches for this condition. Kuder,[7] remarks that, since the organism grows in a pH of 3.5 to 11, neither acid nor alkaline douches are of much value.

Cleansing douches, therapeutic douches and preparations that may be used for both purposes are supplied in the form of solutions, powders and, occasionally, as tablets. The powders are frequently dispensed in single-dose packets or envelopes, thereby adding greatly to their accuracy and convenience of use. Douches may be classified as acid, alkaline, astringent or medicated, the last including antiseptic products. While some douches aim at providing a single effect, such as

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restoring the normal acidity of the vagina, many preparations offer a combined action. Thus, a douche may be designed, not only to impart a definite pH, but may also have an astringent or antiseptic action.

In addition to the active ingredients, a douche may contain components which contribute other desirable properties to the solution and which enhance its acceptability by women. For example, it is common practice to include menthol, eucalyptol, thymol, methyl salicylate and other aromatic or soothing agents in the formula. In general, the aim in formulating douches is to provide a product that is nontoxic, free from irritating and deleterious components and which provides the desired beneficial effects to the vaginal and other mucous membranes with which it comes in contact.

As is already quite evident, pH is an important consideration in the formulation of a douche preparation. The importance of this point was well summarized by Greenblatt and Brown[1] in their discussion of a new principle in douching. It appears, said these workers, that certain organisms thrive in the secretions of a pH most favorable to their growth. Thus, the Doderlein bacillus is found only in the normal acid secretion. Monilia albicans is most frequently seen when the secretion is acid, but may exist in secretions of any pH. The reaction in acute trichomonad infestation will be found shifted toward alkalinity. In mixed infections, like those caused by staphylococci, streptococci, and bacillus coli, the pH varies from 5.5 to 7.5.

Many workers favor douches that are on the acid side. In commenting on this fact, Smith[9] observed that acid douches have been recommended for cleansing partly because alkaline douches may favor the growth of pathogenic organisms. How important this is clinically is debatable, says he, but simple acid douches can be prepared by adding 3 tablespoonfuls of vinegar (5 per cent acetic acid) to 2 liters of warm tap water or 1 tablespoonful of lactic acid to 2 liters of water.

Such simple acid solutions are useful both for cleansing and for the treatment of vaginitis, including senile vaginitis. Thus, Kernaky[21] who particularly advocates the use of vinegar, suggests its employment not only in the therapy of acute vaginitis, but in the ordinary cleansing douche as well. In addition, acid douches find frequent use as adjuncts to other vaginal medicaments or treatments.

Of course, much more elaborate douche preparations are available under various brand names. Boric acid is present in several such preparations, in combination with various other agents[22]. One rather simple preparation containing this ingredient may be made, according to the "Pharmaceutical Recipe Book,"[23] by mixing equal parts of finely powdered boric acid and tannic acid. For preparing douches, 1 teaspoonful of the powder is dissolved in a quart of water. Of related interest is the compound Boric Acid Douche Powder as offered in the "Florida Formulary"[24] and used in a ratio of 2 teaspoonfuls per quart of warm water:

Alum	**2.00 Gm.**
Tannic acid	**2.00 Gm.**
Boric acid	**8.00 Gm.**
Sodium citrate	**0.25 Gm.**

Certain preparations are buffered to provide a better and more prolonged acid action in the vagina. One such, described as an acid therapeutic douche powder, consists of a specially processed buffered combination of aluminum sulfate and calcium acetate plus a wetting agent. Another, supplied as a liquid, is said by its manufacturer to contain benzoic, lactic and acetic acids, menthol, thymol, phenol, eucalyptol, methyl salicylate, aromatics, and isopropyl alcohol in a properly buffered, propylene glycol-aqueous solution.

As previously noted, some gynecologists[16-18] favor alkaline solutions, based on sodium bicarbonate, as douches in the treatment of monileal vaginitis. Alkaline douches find extensive use as cleansing agents to remove heavy, tenacious mucus accumulations.[25] Noting their value for this purpose and their employment to allay itching due to acid secretions, Smith[9] suggests the use of the following mixture as a simple modification of the sodium bicarbonate douche:

Menthol	**2.0 Gm.**
Methyl salicylate	**4.0 cc.**
Sodium bicarbonate	**94.0 Gm.**

One teaspoonful of this powder is added to a liter of water to provide an astringent douche.

Used in the same proportions, the following more elaborate mixture is recommended[26] for making an alkaline cleansing vaginal douche:

Menthol	**2.5 Gm.**
Camphor	**2.5 Gm.**
Methyl salicylate	**5.0 cc.**
Sodium bicarbonate	**45.0 Gm.**
Sodium borate, to make	**100.0 Gm.**

An astringent action can be imparted to an alkaline product of this kind by including materials like alum or zinc sulfate. Illustrative is the following powder,[23] used at the rate of 1 teaspoonful per quart of water:

Menthol	**3.0 Gm.**
Alum	**45.0 Gm.**
Sodium borate	**465.0 Gm.**
Sodium bicarbonate	**487.0 Gm.**

Another variation,[24] used in a ratio of ½ teaspoonful per quart of water, consists of:

Zinc sulfate	**6.0 Gm.**
Menthol	**1.0 Gm.**
Camphor	**1.0 Gm.**
Sodium borate	**45.0 Gm.**
Sodium bicarbonate	**45.0 Gm.**

If only an astringent action is desired, suitable douches may be prepared by dissolving 2 teaspoonfuls of alum or 1 of zinc sulfate in each liter of water. If desired, the two agents may be combined in equal proportions; 1 teaspoonful of the resulting powder being used per quart of water.[23] One teaspoonful is

also used when the following mixture[26] is used to make an astringent douche:

Thymol	**2.5 Gm.**
Copper sulfate	**20.0 Gm.**
Zinc sulfate	**20.0 Gm.**
Potassium aluminum sulfate	**57.5 Gm.**

Generally, however, soothing, aromatic and deodorizing agents are included with the astringents to provide more rounded products. Antiseptics are often included as well. Thus, phenol is present in several proprietary douche preparations[22] and its employment is indicated in standard formulas. Illustrative is a preparation[24] of:

Sodium citrate	**0.25 Gm.**
Zinc sulfate	**4.00 Gm.**
Alum	**4.00 Gm.**
Oil of peppermint	**0.06 Gm.**
Phenol	**0.10 Gm.**

Two tablespoonfuls of this mixture are used per quart of water as a douche.

More like certain commercial products is an astringent douche powder[23] made from:

Sodium borate	**575.0 Gm.**
Alum, exsiccated	**400.0 Gm.**
Phenol	**5.0 Gm.**
Thymol	**5.0 Gm.**
Menthol	**5.0 Gm.**
Eucalyptol	**5.0 cc.**
Methyl salicylate	**5.0 cc.**

If a liquid preparation is desired, the same source provides the following formula:

Alum	**4.0 Gm.**
Zinc sulfate	**4.0 Gm.**
Phenol, liquified	**5.0 cc.**
Glycerine	**125.0 cc.**
Water, distilled, to make	**1000.0 cc.**

Other antibacterial agents find use in the preparation of antiseptic douches. Oxyquinoline sulfate, for example, is used in a number of proprietary preparations, generally in combination with other active agents.[22] Reich and his colleagues[12] mention the prophylactic use of a mild antiseptic douche, preferably an oxychlorine preparation, following exposure to possible contaminants. Recently, Biskind[27] spoke highly of the effectiveness of preparations containing phenylmercuric acetate in the treatment of infections of the vagina and cervix. When used as a 1:22,500 solution for douching, he found that phenylmercuric acetate is nontoxic and is nonirritant to the vaginal mucous membranes.

During the last few years, various surface active agents have also found employment in douches. As might be expected, the cationic, quaternary ammonium compounds have attracted considerable attention because of their antibacterial qualities,[28] and because of their action against vaginitis—causing organisms.[29,30,31] Thus, dilute solutions of benzalkonium chloride, U.S.P. are described as suitable for irrigating the vagina.[32] Of kindred interest is the following

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formula, which is described[33] as an antiseptic solution for feminine hygiene:

Quaternary ammonium compound (*Hyamine 10-X, 25%)	**12.0 per cent**
Glycerine	**3.5 " "**
Water, distilled	**84.5 " "**

*Rohm & Haas Co., Philadelphia.

If desired, this preparation may be perfumed and colored. It is recommended for use at a dilution of 1:90.

The anionic surface active compounds, commonly known as synthetic detergents, have also proven useful as wetting agents in douches.[9] For example Parks[34] recommends the use of sodium lauryl sulfate compound douches in the treatment of monilial infections. According to one authoritative source,[24] a douche powder containing this agent may be made from:

Menthol	**3.0 Gm.**
Thymol	**3.0 Gm.**
Phenol	**5.0 Gm.**
Eucalyptol	**5.0 Gm.**
Methyl salicylate	**5.0 Gm.**
Sodium lauryl sulfate	**30.0 Gm.**
Zinc sulfate	**4.0 Gm.**
Sodium biborate	**472.5 Gm.**
Sodium bicarbonate	**472.5 Gm.**

Of related interest are the douche compositions developed by Wright and Lewing[35] to provide mildly acid, mildly astringent and effectively detergent solutions. The activity of their compositions depends on the presence of a suitable astringent and wetting agent. According to their patent claims, the astringent serves to coagulate or clot the mucous layer on the vaginal surface thus permitting the wetting agent to reach and cleanse the underlying surfaces. A detergent of the alkylated aryl polyether alcohol type is used.

Rather interesting is the effervescent douche tablet developed by Greenblatt and Brown.[1] Used in a special syringe unit, solution of this tablet in water not only provides a cleansing vaginal douche, but assures its delivery into the vagina under a satisfactory but harmless degree of pressure. The tablets used in this procedure are made to contain:

Citric acid	**33.0 per cent**
Sodium bicarbonate	**42.0 " "**
Boric acid	**5.0 " "**
Sodium chloride	**16.0 " "**
Calcium gluconate	**4.0 " "**

Of course, certain types of douches are more specialized and are used in the treatment of specific conditions. Thus, in trichomonas vaginalis vaginitis, Greenblatt[17] advises that acid douches, made with vinegar, should be employed twice daily for three months and two or three times daily during menses. Others, like Crossen[36], treat trichomonas vaginitis by readjusting the vaginal pH to the acid side and supplying lactose to aid in the increase of the normal vaginal flora. Lactic acid or vinegar douches are used; beta-lactose in capsule or tablet form being employed with the douche.

An improvement over this procedure has been developed by Fiorino and his associates[37] for the treatment of trichomonas vaginalis vaginitis. They employ the following solution, of which one tablespoonful added to a quart of warm water serves as a morning and evening douche:

Glycerinal	**4 oz.**
Lactic acid	**½ oz.**
Phosphoric acid	**½ oz.**
Phenylmercuric nitrate solution, 1:1000, to make	**1 pt.**

This solution, they say, provides a three-fold action. It serves to cleanse the vagina of the deversified microbial population associated with trichomoniasis; it serves to a limited extent as a trichomonacide and, finally, the mixed acids function in the restoration of the normal vaginal pH. The use of this douche is followed by the insertion of a strongly buffered tablet containing beta-lactose.

A few years, Minnich[38] developed the following preparation for use in cases of vulvovaginal mycosis that had not responded to other forms of therapy:

Thymol	**0.2 per cent**
Menthol	**0.1 " "**
Oil of wintergreen	**0.1 " "**
Eucalyptol	**0.1 " "**
Sodium lauryl sulfonate	**3.0 " "**
Sodium perborate	**sufficient**

Good results were obtained when patients took bidaily douches using 1 tablespoonful of the powder per quart of water. Subsequently, Rogers[39] verified the efficacy of this preparation and reported that it yielded "excellent" results.

Of related interest is the simple douche powder described in the "Florida Formulary"[24] as consisting of:

Methyl salicylate	**2.0 cc.**
Sodium perborate	**120.0 Gm.**

Before concluding, consideration should also be given to the so-called precoital douches. Curtis[40] notes that the use of a precoital douche of Ringer's solution containing 2 per cent glucose, to be used only in cases of infertility of long standing, has been suggested by some workers. Spermatozoa maintain maximal motility in this solution, due to energy derived from the glucose.

A pro-conceptive preparation of this sort is available commercially for use in selected cases to promote fertility where failure of conception cannot be ascribed to evident organic abnormality.[22] A dextrose-Ringer's douche powder formula has been given[26] as follows:

Sodium chloride	**30.40 Gm.**
Potassium chloride	**1.41 Gm.**
Calcium chloride	**0.70 Gm.**
Dextrose to make	**100.00 Gm.**

One tablespoonful of this powder is dissolved in a pint of water as a precoital douche in sterility cases as a means of aiding sperm activity.

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The Physician and the Drug Manufacturer

(*Continued from page 45*)

So the enlightened physician does not resent the profits earned by the pharmaceutical industry. He recognizes that it is an industry and not a dedicated profession and competes for the goal of profit. He can hope that it dilutes its commerce with a dash of humanitarian warmth. Interestingly enough, he generally finds it does. I should like to remind you that the drug industry is in the rare and happy position of being able to maintain a normal business aspect and still participate in humane works. This may sound like over-reaching sentiment to some, and yet not have been clearly apparent to others among you. You are lucky men who can combine in your business life a modicum of spiritual motivation in addition to your routine bread-and-butter activities. It is a rare privilege. In most types of enterprise the sentiment on the Christmas calendar comprises the total spiritual yield of the year.

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I wish I could tell you the shocking details of the upheaval in university research in the last decade. It is a monotonous tale of the change from university support of the scholar in whatever direction his nose led him to the year-to-year outside support of the same man for a specific project. Originally a man was endowed deliberately to wander down promising paths for a life time, perhaps coming up with something remarkable occasionally or merely sketching out dead ends for others to avoid. Today such a career entails year-to-year projects, catch-as-catch-can, with one foundation or another, or perhaps a drug company in support, with the contracted time spent on a specific problem—*for which the original thinking has usually already been done.*

That original thinking well is bound to run dry if it isn't filled on occasion and I see little hope it will be. The degradation of university-type research is appalling, expensive, and ugly to behold. Every man has to look about for his yearly aid and this does not make for efficient devotion to experimental work. Too, deans may come to cherish the hacks who keep their laboratory coffers filled more than the dreamers who have to be looked after like daft waifs. And one cannot blame the dean. He has lived to see his elevator operators unionized, his technicians on a five-day week, and his deficits inevitably rising by leaps and bounds, while his endowment yield dies away in the hands of a government fond of manipulating the currency. And his board of trustees is too busy damning the government for bleeding it white to hand over its last bit of finery to the university. The support of a university is unfortunately a luxury and falls by the wayside easily. Merely as an observer and with no political intent or knowledge, I should note that the every act of our government seems calculated to make the structures we are so anxious to preserve more tenuous and teetering.

And how can the drug companies help? They can help in the easiest possible way—by helping themselves. The routes are obvious. Support the goose that lays the golden egg; support the original research where it belongs—in the university. Your accountants know a great deal about it and I know very little, so I shan't tell you how relatively painless the expenditure of funds for research can be under the present tax structure.

But don't merely support research—follow up your advantage. Now that you are in the position of a big brother, come in and offer your newly respected advice; get to know the way the universities function; get to know the deans and their departments. Remember that your best customers are trained there, and your future personnel, and that you have a vested interest in both.

Remember also that you have specific problems to solve, and that they require screening, discriminative development, and clinical trial. I have always been amazed at the slap-dash arrangements by which many great drug houses get their products tested. The authenticity of the experimenter is often unknown or unquestioned, and his methods left to blush unseen. It is just as easy to get the best possible help as to get the most eager to try new things.

And where do the ideas come from? You will find many medical men with practical suggestions based upon actual experience only too happy to give you leads. Where else on God's green earth can you get so much for free? And disregard it so. Instead of detail men to plug products alone, a few well trained men who could discuss concepts of therapy with obvious experts might pay their way and engender a lot of good will.

Then we come to your medical departments. There was a time when such a medical job was on a par with insurance medicine—not a highly respected niche in the medical hierarchy. Today the picture is completely changed. The medical director of a drug company has an exciting opportunity and consequently is a man of stature. Such a man is a good inexpensive investment —pay him well. And hire some first class consultants to help him. I never could understand big business, with impressive boards of directors to guide them in business tactics, neglecting to have parallel boards of medical experts to help plan their strategy and orientation. To rise but once from my humility—I have seen! And what I have seen makes me firmly believe that product development is often compounded of equal parts of sheer good luck and blind chance. Roulette—not chess. It isn't as though there were no talent available. It is there and, I am sure, anxious to help now that there is no suspicion of blemish on the shield of the drug houses.

And while on the subject, Lincoln was right—you can fool all of the people some of the time and some of the people all of the time, but you cannot fool all of the people all of the time. I am talking about your experimental data, our protocols. Any doctor you take them to who is worth your bothering with will soon recognize the authenticity of your data or its lack thereof. It is a poor field for economy and a handsome one in which to gain respect. After you have obtained the data you desired from some idealistic fledgling, don't corrupt his ideals and undermine his ego by having some clever script writer perform miracles of double talk with his facts in your brochures. Such cunning does not engender warm friendship. Pick good men for your medical and scientific posts and send them often and late into the medical schools, to the clinics and the conferences. Keep them there, and make sure that they are equal to the task. The era of a medical director who answers letters from a G. P. on how to apply your particular mustard plaster is dead—and incidentally so is that kind of practitioner—almost. Not to labor this theme any longer, I should say that the most astonishing thing about the drug houses is first, the wasteful way they neglect gratuitious counsel and second, the small size of their medical staffs.

It is obvious to everyone that I have had my say. I have first tried to explain why medicine behaves as it

does, and how such traditions affected our approach to the drug industry. I think it is safe to say that all our misgivings are disproven and that medicine is anxious to cooperate with and befriend the drug industry. We are certainly impressed with its achievement, and sense in it a peculiarly American compromise with the facts of life—altruism and business acumen, the will to glory and honorable profit—and I do not blame you for wanting both.

The Package Idea Precedes The Design

(*Continued from page 43*)

If you have an article worthy of fine packaging, I would suggest not to be too thrifty with your art work. Your product actually stands or falls on this initial expense. A poorly designed package that is expertly reproduced has a better chance to succeed than an expertly designed package that is poorly reproduced.

Don't be a copyist of a design or a color scheme of your competitor. Again we repeat that your package must have its own originality as well as individuality. Leave the reproduction to the craftsmanship of the concern that specializes in fine color printing, bronzing and embossing. It is fundamental to know that a package must have eye appeal and stand out among the competitive packages when placed on a counter. It is not always the flashy appearing package that brings repeat business. It may boomerang on the reputation of a manufacturer just as the name "flashy" applies to a person who wears such clothes, although intensity of color, properly handled, can be most interesting.

Summing up . . . when your package has been well designed by a reputable artist and reproduced by craftsmen of ability, worthy of the fine product underneath the wrapper, it is then that confidence and faith in your package is all important. Do not be discouraged by the first criticism or a temporary lull in business and start looking for another design thinking a change is necessary, thereby destroying the good will that your package may have developed. It was once quoted that it takes five to six years for the real test of a successful package. If you do ot have complete confidence in your package design at the start, don't go ahead with it!

Pharmacy Today

(*Continued from page 37*)

Pharmaceutical manufacturers today are spending millions of dollars annually for research which occasionally leads to the discovery and development of some new and more effective medicinal agent, but more often merely adds to the sum total of knowledge of chemistry and pharmacology. These contributions to scientific progress are possible only through expenditures which are recouped from the sale of products which have been successfully launched as new remedies.

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in manufacturing institutions, or elsewhere. But we have great difficulty in explaining to these young people how a retail dispenser can establish himself without a rather large and to a considerable extent unnecessary expenditure for stocks of so called specialties, which in many instances are simply duplications of existing standard products.

And we have even greater difficulty in explaining how they are to overcome the financial loss resulting from the fact that so many of the new prescription products launched with ambitious advertising and sales campaigns become shelf-warmers after one or two prescriptions call for them.

I know that many leaders in the drug industry, as well as in the profession have given this problem much thought and are alarmed over the ultimate consequences of the situation which is clearly not in the interests of the sick or of the professions involved in treating the sick. Recognition of the problem is the first step towards its solution, and even though I am reiterating complaints recorded nearly sixty years ago by Remington, I am hopeful that the industry and the profession will take necessary steps to meet this situation before it becomes worse.

So far I have confined myself to observations of the prescription dispensing trends in pharmacy. I repeat that aside from the potential dangers created by the marketing of large numbers of needless items the prescription practice of the pharmacist has gained in importance both as a source of income and of increased prestige. This, however, cannot be said of his other activities. The sale of potent and dangerous drugs has become more effectively confined to the pharmacy both by legislation and by general public acceptance but we are now witnessing a reverse trend as far as other drug store products are concerned. The current inroad into general drug store sales by super markets and other non-pharmacy outlets is one such factor. Another one is the recent court decision nullifying the effectivness of our fair-trade laws thus adding further fuel to undesirable competition and in addition to all this we are now threatened with encroachment of our traditional rights by court actions intended to challenge the purpose and scope of our state pharmacy laws and regulations.

These trends cannot be allowed to go on unchallenged. They have as their objective increasing the number of outlets for drug store products and this would result in bringing the pharmacy to the level of the ordinary merchant. We are told by many that this deplorable situation can best be met by adopting more aggressive merchandising procedures but such a policy I fear would only result in still further stressing the purely commercial aspects of the pharmacy. The future of the profession of pharmacy lies in our emphasizing the professional character of our retail establishments, the added services which we render and our specialized knowledge and training which make such services possible.

This, however, cannot be done without the full cooperation and understanding on the part of the other branches of our industry. Our manufacturing and wholesaling friends should realize that they have little to gain and much to lose by vastly widening their area of retail outlets. They have grown and prospered in a specialized field of activity, but this field is only specialized because of the fact that their products did not enter into general distribution channels and were confined primarily to the retail pharmacy. A widening of the nature of retail outlets for drug store products will inevitably cause a breakdown of the barriers which now create this specialized field for the manufacturer and wholesaler and he, too, will have vastly increased competition from completely unrelated sources.

I cannot help but reach the conclusion that while the prescription services in the pharmacy have become more significant both from the professional and economic standpoint that nevertheless the other phases of drug store activity are in danger of underlying changes which are not in the best interest of pharmacy or of public welfare. It is foolish to try to rely merely on the enactment of legislation to correct these conditions. Many of them require a better undersanding and a greater degree of cooperation within the industry itself.

There must be a complete realization of the fact that the interests of any one branch of our industry and profession are common to all and that none can afford to have a weak link in our rather complex chain of production and distribution.

The Barbiturate Problem

(Continued from page 33)

prescribe barbiturates for anxious nervous patients is one of the things that makes dangerous their uncontrolled use. The pills bring a feeling of well-being, a relaxation of fears and inhibitions. It is beneficial in many illnesses, but is a bad thing for potential troublemakers who are held back only by their inhibitions of fear of committing anti-social acts. The important thing, Dr. Trichter says, is that barbiturates taken under a physician's direction will start a work of physical and mental deterioration if their use is continued beyond the prescribed time.

It must be recalled that it was New York City that led the parade in control of the sale of barbiturates some years back. New York City amended its Sanitary Code to restrict these drugs to prescriptions long before the Food and Drug Administration or the state agencies took any action in this regard. The activity of New York City in attempting to control this menace is what has stirred the rest of the country into action, and is largely responsible for the present activity in Washington toward solution of this problem.

Quite naturally the drug manufacturers are not kindly disposed toward any extension of Federal powers in the control of drug products. The manufacturers honestly believe that the laws on the statute books at the present time are adequate for proper control. However, they

recognize that a special problem exists when a certain class of products, such as the barbiturates, are the subject of a widespread illegitimate use that is resulting in danger to health.

It has been pointed out by some interested people that the main cause of the spread of this illegitimate distribution of barbiturates is the result of the various states to properly enforce their state laws. It was pointed out that the Sullivan case in Atlanta, Georgia, which case established the power of the Food and Drug Administration to control products when dispensed at retail, was the result of the failure of the officials of Georgia to enforce its law against the improper dispensing of dangerous drugs. It was pointed out by a representative of the State of Massachusetts that this state enacted an illegal possession law with respect to barbiturates, and that enforcement of this law was very effective in suppressing the illegal distribution of the drugs in that state. New York State has an illegal possession law which would enable local police officers to arrest everyone who has not obtained the barbiturates in his possession on a valid prescription. The law makes illegal possession, as well as illegal sale, a misdemeanor, with a penalty for the first offense, of a fine up to $500, and a year in jail, and double that for each repeated conviction. However, this penalty is said to be seldom invoked. Where the offense involves a pharmacist instead of an unlicensed seller, the case is turned over to the Attorney General of New York State for prosecution.

The Federal control over these drugs is said by some to have been strengthened by enactment of the Durham-Humphrey Act which clarifies and strengthens the power of the FDA over the prohibition of refilling of prescriptions for dangerous drugs. In fact, this amendment to the Federal Food, Drug, and Cosmetic Act prohibits refilling a barbiturate prescription unless ordered by the physician, either in the original prescription or by subsequent oral or written instructions to the pharmacist. This, according to New York City health authorities, leaves too large a loophole. Even worse, says Dr. Trichter, there has never been adequate provision for Federal enforcement. The New York City Board of Health has sought for years to have control of barbiturates turned over to the Federal Bureau of Narcotics. However, the Food and Drug Administration has been extremely active in prosecuting druggists or illegal sales of barbiturates ever since the Sullivan decision four years ago. Every month the FDA reports numerous convictions in such cases.

Until the FDA issues its regulations for enforcement of the Durham-Humphrey Act, and until this Act has been in existence for some time, can anyone say whether or not this new law will be effective in suppressing the illegal distribution of barbiturates. Certainly the power which the FDA established in the Sullivan case has resulted in a great many convictions. Perhaps the strengthening of the law by the Durham-Humphrey Act might give the FDA sufficient power to establish satisfactory control over this problem.

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